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# STIC Search Report

## EIC 2800

STIC Database Tracking Number: 95482

**TO: Hal D Wachsman**  
**Location: CP4 8B04**  
**Art Unit : 2857**  
**Wednesday, June 04, 2003**

**Case Serial Number: 09/896790**

**From: Irina Speckhard**  
**Location: EIC 2800**  
**CP4-9C18**  
**Phone: 308-6559**

**irina.speckhard@uspto.gov**

### Search Notes

Examiner Wachsman,

Please find attached first-pass prior-art search results from the patent and non-patent abstract and full-text databases. The results were based on claims and statements of technical problems and solutions. Tagged records might be worth your review as well as the rest of the references provided.

If you need further searching or have questions or comments, please let me know.

Thank you,

Irina Speckhard



5496 95482

## SEARCH REQUEST FORM Scientific and Technical Information Center - EIC2800

Rev. 8/27/01 This is an experimental format -- Please give suggestions or comments to Jeff Harrison, CP4-9C18, 306-5429.

Date 6-2-03 Serial # 09896,790 Priority Application Date 6-18-01  
 Your Name Ha/Wachman Examiner # 21225  
 AU 2817 Phone 305-9288 Room CP4-8B04  
 In what format would you like your results? Paper is the default. PAPER DISK EMAIL

If submitting more than one search, please prioritize in order of need.

The EIC searcher normally will contact you before beginning a prior art search. If you would like to sit with a searcher for an interactive search, please notify one of the searchers.

Where have you searched so far on this case?

06-02-03 P12:14

IN

Circle: USPT DWPI EPO Abs JPO Abs IBM TDBOther: PLU

What relevant art have you found so far? Please attach pertinent citations or Information Disclosure Statements.

What types of references would you like? Please checkmark:

Primary Refs ☒ Nonpatent Literature ☒ Other \_\_\_\_\_  
 Secondary Refs ☒ Foreign Patents ☒ \_\_\_\_\_  
 Teaching Refs ☒ \_\_\_\_\_

What is the topic, such as the **novelty**, motivation, utility, or other specific facets defining the desired **focus** of this search? Please include the concepts, synonyms, keywords, acronyms, registry numbers, definitions, structures, strategies, and anything else that helps to describe the topic. Please attach a copy of the abstract and pertinent claims.

A device for diagnosing consumer electronic device, locally (ie such as in the home) or by eliminating the need to find a service center and ship the faulty device to a service center. A testing consumer electronic device is a local device owned by a user that is capable of diagnosing problems associated with a potentially faulty consumer electronic device. The testing consumer electronic device and the potentially faulty consumer electronic device are part of a home network.

Some key words: consumer electronics, test or testing or tester, diagnose or diagnose or diagnosing, law H/W, defective, faulty, home network CE bus

Staff Use Only  
 Searcher: Speckhard  
 Searcher Phone: \_\_\_\_\_  
 Searcher Location: STIC-EIC2800, CP4-9C18  
 Date Searcher Picked Up: 6/4/03  
 Date Completed: 6/4/03  
 Searcher Prep/Rev Time: 200  
 Online Time: 100

Type of Search  
 Structure (#) \_\_\_\_\_  
 Bibliographic ☒  
 Litigation \_\_\_\_\_  
 Fulltext ☒  
 Patent Family \_\_\_\_\_  
 Other \_\_\_\_\_

Vendors  
 STN \_\_\_\_\_  
 Dialog ☒  
 Questel/Orbit \_\_\_\_\_  
 Lexis-Nexis \_\_\_\_\_  
 WWW/Internet \_\_\_\_\_  
 Other \_\_\_\_\_

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04jun03 10:03:46 User267149 Session D746.1

SYSTEM:OS - DIALOG OneSearch

File 2:INSPEC 1969-2003/May W4  
(c) 2003 Institution of Electrical Engineers  
\*File 2: Alert feature enhanced for multiple files, duplicates removal, customized scheduling. See HELP ALERT.  
File 6:NTIS 1964-2003/Jun W1  
(c) 2003 NTIS, Intl Cpyrght All Rights Res  
\*File 6: Alert feature enhanced for multiple files, duplicates removal, customized scheduling. See HELP ALERT.  
File 8:Ei Compendex(R) 1970-2003/May W4  
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\*File 8: Alert feature enhanced for multiple files, duplicates removal, customized scheduling. See HELP ALERT.  
File 34:SciSearch(R) Cited Ref Sci 1990-2003/May W4  
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\*File 34: Alert feature enhanced for multiple files, duplicates removal, customized scheduling. See HELP ALERT.  
File 434:SciSearch(R) Cited Ref Sci 1974-1989/Dec  
(c) 1998 Inst for Sci Info  
File 35:Dissertation Abs Online 1861-2003/May  
(c) 2003 ProQuest Info&Learning  
File 65:Inside Conferences 1993-2003/Jun W1  
(c) 2003 BLDSC all rts. reserv.  
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(c)2003 Japan Science and Tech Corp(JST)  
File 99:Wilson Appl. Sci & Tech Abs 1983-2003/Apr  
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File 144:Pascal 1973-2003/May W4  
(c) 2003 INIST/CNRS  
File 305:Analytical Abstracts 1980-2003/May W2  
(c) 2003 Royal Soc Chemistry  
\*File 305: Alert feature enhanced for multiple files, duplicate removal, customized scheduling. See HELP ALERT.  
File 315:ChemEng & Biotec Abs 1970-2003/May  
(c) 2003 DECHEMA  
File 350:Derwent WPIX 1963-2003/UD,UM &UP=200335  
(c) 2003 Thomson Derwent  
File 347:JAPIO Oct 1976-2003/Jan(Updated 030506)  
(c) 2003 JPO & JAPIO  
\*File 347: JAPIO data problems with year 2000 records are now fixed. Alerts have been run. See HELP NEWS 347 for details.  
File 344:Chinese Patents Abs Aug 1985-2003/Feb  
(c) 2003 European Patent Office  
File 371:French Patents 1961-2002/BOPI 200209  
(c) 2002 INPI. All rts. reserv.  
\*File 371: This file is not currently updating. The last update is 200209.



Set	Items	Description
S1	26681	DIAGNOS????????(3N) (DEVICE OR APPARAT????????)
S2	45838	(DIAGNOS???????? OR DISTINGUISH???? OR IDENTIF???? OR GAT- EWAY OR GATE()WAY) (3N) (DEVICE? ? OR APPARAT????????)
S3	16996	(CONSUMER? ? OR USER? ?) (3N)ELECTRONIC? ?
S4	2662	CEBUS? OR CEBUS?(3N)NETWORK? ?
S5	29788	DIAGNOS????????(3N) (PROCEDURE OR CONTROL????????)
S6	31032	DIAGNOS????????(3N) (DEVICE? ? OR APPARAT????????)
S7	31032	S1, S6
S8	92907	S2: S5
S9	5144	DIAGNOS????????(3N) (LOCAL???? OR HOME)
S10	6617	HOME(3N)NETWORK? ? OR USER? ?(2N) (OWNED OR OWN)
S11	350	ELIMINAT????(3N) (SHIP OR SHIPMENT? ? OR SHIPPING)
S12	40495	(FAULT???? OR DEFECT???? OR IMPERFECT????) (3N) (ELECT- RONIC? ? OR DEVICE? ? OR APPARAT????)
S13	17540	(POTENTIAL???? OR POSSIBLE) (3N) (FAULT???? OR DEFECT?- ???? OR IMPERFECT????)
S14	563419	(MONITOR???? OR MEASUR???? OR TEST???? OR CHECK??- ??) (3N) (ELECTRONIC? ? OR DEVICE? ? OR APPARAT????)
S15	282154	(DIAGNOS???? OR IDENTIF???? OR DETECT???? OR SE- NS????) (3N) (FAULT???? OR DEFECT???? OR IMPERFECT???? OR PROBLEM? ?)
S16	12106	S9: S11
S17	874836	S12: S15
S18	8500	(NOTIF???? OR WARN???? OR ALERT????) (3N) (USER? ? OR - CONSUMER? ?)
S19	168347	USER? ?(3N) (INTERFACE? ? OR INTER()FACE? ? OR INPUT OR IN(- )PUT)
S20	176385	S18: S19
S21	43996	(CONVENTIONAL??? OR EXTRA OR ADDITION????) (3N)FUNCTION??- ????
S22	312596	COLLECT????(3N) (DATA OR DATUM)
S23	31032	S7 AND S8
S24	84	S23 AND S16
S25	28	S24 AND S17
S26	1	S25 AND S20
S27	27	S25 NOT S26
S28	0	S27 AND S21
S29	1	S27 AND S22
S30	26	S27 NOT S29
S31	24	RD (unique items)
S32	56	S24 NOT S25
S33	56	S32 AND S2
S34	0	S33 AND S3
S35	0	S33 AND S4
S36	2	S33 AND S5
S37	2	RD (unique items)
S38	54	S33 NOT S36
S39	53	S38 AND S9
S40	0	S39 AND S10
S41	0	S39 AND S11
S42	0	S39 AND S12
S43	10	S3 AND S5
S44	10	RD (unique items)
S45	9	S44 NOT S25, S36
S46	2641	S7 AND S15

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09/896,790

S47	38	S46 AND S13
S48	37	S47 NOT S44,S25,S36
S49	31	RD S48 (unique items)
S50	1	S49 AND CONSUMER? ?
S51	30	S49 NOT S50
S52	0	S51 AND LOCAL??????(3N)NETWORK? ?
S53	3	S51 AND ELECTRONIC?
S54	3	RD (unique items)
S55	27	S51 NOT S53

06/04/2003

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26/3,AB/1 (Item 1 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
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009889882

WPI Acc No: 1994-169798/199421

XRPX Acc No: N94-133725

Service call system for electrophotographic reprographic machine - uses  
**user interface** at faulty machine to establish communication  
with remote site and transmit machine identity and physical data and  
accept and display status messages

Patent Assignee: XEROX CORP (XERO )

Inventor: ULINSKI J S

Number of Countries: 005 Number of Patents: 006

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
EP 599523	A2	19940601	EP 93309066	A	19931112	199421 B
US 5325156	A	19940628	US 92979033	A	19921120	199425
JP 6217028	A	19940805	JP 93155830	A	19930625	199436
EP 599523	A3	19950927	EP 93309066	A	19931112	199615
EP 599523	B1	19961204	EP 93309066	A	19931112	199702
DE 69306368	E	19970116	DE 606368	A	19931112	199708
			EP 93309066	A	19931112	

Priority Applications (No Type Date): US 92979033 A 19921120

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
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EP 599523	A2	E	10	G03G-015/00	
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US 5325156	A		10	G03G-015/00	
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JP 6217028	A		8	H04M-011/00	
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EP 599523	B1	E	11	G03G-015/00	
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Designated States (Regional): DE FR GB

DE 69306368	E			G03G-015/00	Based on patent EP 599523
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EP 599523	A3			G03G-015/00	
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Abstract (Basic): EP 599523 A

The service call system for a reprographic machine (10) includes an operator initiated calling routine that automatically communicates the machine with a remote diagnostic or service facility (60). Predetermined data relating to the identity of the machine and the nature of the fault are communicated at the time of the initial call.

The system provides for interactive communication to obtain additional information or display status messages at the reprographic machine.

USE/ADVANTAGE - Monitoring operation of several electrophotographic reprographic machines from remote source. Provides improved communication between **faulty** machine and central **diagnostic** system or **local** field service facility.

Dwg.3/5

Abstract (Equivalent): EP 599523 B

A service call system for a reprographic machine comprising: first storing means for storing identity information relating to identification of the reprographic machine; second storing means for storing machine status information relating to the reprographic machine; characterised by a user-activated means for initiating a communication to a remote facility; and means responsive to actuation of the user-activated means for causing automatic transmission of the

identity information and at least some of the machine status information to the remote status information facility.

(Dwg.1/5)

Abstract (Equivalent): US 5325156 A

The service request system for a reprographic machine comprises a first storing device for storing identity information relating to identification of the reprographic machine and second storing device for storing machine status information relating to the reprographic machine. A **user interface** device at the reprographic machine for establishing communication with a remote facility via a communication line is provided and a user-activated device initiates a communication to the remote facility via the **user interface**

Transmission device responsive to actuation of the user-activated device causes automatic transmission along the communication line of the identity information, at least some of the machine status information and a request for service to the remote facility. A **diagnostic device** at the remote facility is actuated in response to the transmission **device** for making a **diagnosis** of the reprographic machine in the remote facility and relays at least one of the diagnosis and information relating to the request for service along the communication line back to the **user interface**.

ADVANTAGE - **User interface** establishes communication with remote diagnostic facility with or without additional operator supplied oral information.

Dwg.3,5/5

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29/3,AB/1 (Item 1 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
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011823370

WPI Acc No: 1998-240280/199821

XRPX Acc No: N98-190025

Field apparatus used in process control system with several field devices  
- has **data collection** unit in **apparatus**  
**collecting diagnostic data** generated during test using  
diagnostic test routine with series of **device** or process  
**diagnostic** instructions, communication unit sends **collected**  
**data** via bus to host

Patent Assignee: FISHER CONTROLS INT INC (FISH-N)

Inventor: BROWN L K; BRUNS H A; LARSON B H; BURNS H A

Number of Countries: 080 Number of Patents: 011

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 9814848	A1	19980409	WO 97US17739	A	19971001	199821 B
AU 9746059	A	19980424	AU 9746059	A	19971001	199835
EP 929850	A1	19990721	EP 97944600	A	19971001	199933
			WO 97US17739	A	19971001	
US 5970430	A	19991019	US 96726262	A	19961004	199950
			US 97922938	A	19970903	
BR 9712261	A	19990824	BR 9712261	A	19971001	200001
			WO 97US17739	A	19971001	
CN 1232553	A	19991020	CN 97198541	A	19971001	200009
US 6026352	A	20000215	US 96726262	A	19961004	200016
			US 97922938	A	19970903	
			US 98167766	A	19981007	
EP 1022626	A2	20000726	EP 97944600	A	19971001	200037
			EP 2000105765	A	19971001	
JP 2001524226	W	20011127	WO 97US17739	A	19971001	200204
			JP 98516855	A	19971001	
EP 929850	B1	20021211	EP 97944600	A	19971001	200282
			WO 97US17739	A	19971001	
			EP 2000105765	A	19971001	
DE 69717838	E	20030123	DE 617838	A	19971001	200315
			EP 97944600	A	19971001	
			WO 97US17739	A	19971001	

Priority Applications (No Type Date): US 97922938 A 19970903; US 96726262 A  
19961004; US 98167766 A 19981007

Patent Details:

Patent No	Kind	Ln	Pg	Main IPC	Filing Notes
WO 9814848	A1	E	88	G05B-019/042	

Designated States (National): AL AM AT AU AZ BA BB BG BR BY CA CH CN CU  
CZ DE DK EE ES FI GB GE GH HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT  
LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT  
UA UG UZ VN YU ZW

Designated States (Regional): AT BE CH DE DK EA ES FI FR GB GH GR IE IT  
KE LS LU MC MW NL OA PT SD SE SZ UG ZW

AU 9746059 A Based on patent WO 9814848

EP 929850 A1 E Based on patent WO 9814848

Designated States (Regional): DE FI FR GB SE

US 5970430 A G06F-015/40 CIP of application US 96726262

BR 9712261 A Based on patent WO 9814848

06/04/2003

09/896,790

US 6026352 A G05B-019/418 CIP of application US 96726262  
Div ex application US 97922938  
EP 1022626 A2 E G05B-019/042 Div ex application EP 97944600  
Div ex patent EP 929850  
Designated States (Regional): AL AT BE CH DE DK ES FI FR GB GR IE IT LI  
LT LU LV MC NL PT RO SE SI  
JP 2001524226 W 86 G05B-019/02 Based on patent WO 9814848  
EP 929850 B1 E G05B-019/042 Related to application EP 2000105765  
Related to patent EP 1022626  
Based on patent WO 9814848  
Designated States (Regional): DE FI FR GB SE  
DE 69717838 E G05B-019/042 Based on patent EP 929850  
Based on patent WO 9814848

Abstract (Basic): WO 9814848 A

The apparatus is used in a process control network (fig 1) has several devices communicatively coupled by a two wire all digital bus with a connector for the field apparatus to the bus to enable all digital communication over the bus. A memory stores a diagnostic test routine with a series of **device** or process **diagnostic test** instructions and a controller for the stored instructions to implement a **diagnostic test** using the **apparatus**.

A **data collection** unit in the **apparatus** collects **diagnostic data** generated during a test and a communication unit sends the **collected data** over the bus to a host for processing. The controller has a program language interpreter interpreting the **test** instructions given the **apparatus** from another device via the bus.

USE - Relates to process control networks and to method and apparatus for performing **local device** and process **diagnostics** in process **control** network with distributed control functions.

ADVANTAGE - Diagnostic test routine is stored in and implemented by process **controller** to perform **diagnostics** on **apparatus** with necessity of reconfiguring control scheme associated with process control network.

Dwg.1/12

06/04/2003

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31/3,AB/1 (Item 1 from file: 2)  
DIALOG(R)File 2:INSPEC  
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6958480 INSPEC Abstract Number: A2001-15-8760M-003, B2001-08-7530B-003  
Title: Calibration frequency of dose-area product meters  
Author(s): Crawley, M.T.; Mutch, S.; Nyekiova, M.; Reddy, C.;  
Weatherburn, H.  
Author Affiliation: Dept. of Radiol., Stoke Mandeville Hospital,  
Aylesbury, UK  
Journal: British Journal of Radiology vol.74, no.879 p.259-61  
Publisher: British Inst. Radiol,  
Publication Date: March 2001 Country of Publication: UK  
CODEN: BJRAAP ISSN: 0007-1285  
SICI: 0007-1285(200103)74:879L.259:CFDA;1-F  
Material Identity Number: B010-2001-004  
Language: English

Abstract: Calibration of patient dose **monitoring devices** in **diagnostic** radiology has become increasingly important in the light of new legislation that requires monitoring of patient dose against **local** and national **diagnostic** reference levels. An investigation was conducted into the long-term stability of 41 dose-area product (DAP) meters over a period of approximately 5 years, to assess the suitability of an annual calibration regimen. For DAP meters fitted to overcouch X-ray tubes, 77% of calibrations were within 10%, whilst for undercouch tubes only 50% of calibrations were within 10%. These findings suggest that annual calibration may be too infrequent. Suitable calibration frequencies for different clinical workloads are discussed.

Subfile: A B  
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31/3,AB/2 (Item 2 from file: 2)  
DIALOG(R)File 2:INSPEC  
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03128444 INSPEC Abstract Number: C88028813

Title: Mathematical model of **local diagnostics** of discrete systems

Author(s): Eena, J.

Author Affiliation: Miki Instrum., Budapest, Hungary

Conference Title: Fifth Symposium on Microcomputer and Microprocessor Applications p.287-92

Publisher: OMIKK-Technoinform, Budapest, Hungary

Publication Date: 1987 Country of Publication: Hungary 2 vol. 700 pp.

ISBN: 963 592 654 5

Conference Sponsor: State Office Tech. Dev.; Hungarian Acad. Sci.; Minist. Ind.; Comput. Res. & Innovation Center

Conference Date: 29 Sept.-1 Oct. 1987 Conference Location: Budapest, Hungary

Language: English

Abstract: Structured vector models of discrete **device diagnostics** based on iterative canonical decompositions (ICD) of Boolean functions are described. Examples of their use to **detect** single stuck-at **faults** at subsystem inputs are given. The ICD method can also be used as a DFT ('design for testability') technique for combinational circuits; it increases observability and controllability with decreasing costs of fault coverage.

Subfile: C



06/04/2003

09/896,790

31/3,AB/3 (Item 1 from file: 8)  
DIALOG(R)File 8:Ei Compendex(R)  
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01661051

E.I. Monthly No: EIM8406-047858  
Title: DIAGNOSIS VIA CAUSAL REASONING: PATHS OF INTERACTION AND THE  
LOCALITY PRINCIPLE.  
Author: Davis, Randall  
Corporate Source: MIT, Artificial Intelligence Lab, Cambridge, Mass, USA  
Conference Title: Proceedings of the National Conference on Artificial  
Intelligence, AAAI-83.  
Conference Location: Washington, DC, USA Conference Date: 19830822  
E.I. Conference No.: 04278  
Source: Publ by American Assoc for Artificial Intelligence, USA.  
Distributed by William Kaufman Inc, Los Altos, Calif, USA p 88-94  
Publication Year: 1983  
ISBN: 0-86576-065-9  
Language: English

31/3,AB/4 (Item 1 from file: 34)  
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci  
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10822996 Genuine Article#: 571UB Number of References: 23  
Title: Automated analysis of data is inferior to visual analysis of  
ambulatory sleep apnea monitoring (ABSTRACT AVAILABLE)  
Author(s): Fietze I (REPRINT) ; Glos M; Rottig J; Witt C  
Corporate Source: Humboldt Univ,Dept Cardiol Angiol & Pulmol, Sch Med,  
Charite,Campus Mitte,Luisenstr 13A/D-10117 Berlin//Germany/ (REPRINT);  
Humboldt Univ,Dept Cardiol Angiol & Pulmol, Sch Med, Charite,D-10117  
Berlin//Germany/  
Journal: RESPIRATION, 2002, V69, N3 (MAY-JUN), P235-241  
ISSN: 0025-7931 Publication date: 20020500  
Publisher: KARGER, ALLSCHWILERSTRASSE 10, CH-4009 BASEL, SWITZERLAND  
Language: English Document Type: ARTICLE  
Abstract: Background: Many ambulatory sleep apnea **monitoring**  
**devices** are equipped with software which allows an automated  
analysis of data as well as a visual analysis. Objective: The Merlin  
system which records heart rate, snoring sound, efforts, oronasal flow,  
body position and oxygen saturation was investigated to identify proper  
parameter settings for the automated analysis and to compare the  
automated with the visual analysis in patients with mild obstructive  
sleep apnea syndrome (OSAS). Sensitivity and specificity of the visual  
and automated analysis of ambulatory monitoring in comparison with  
visual polysomnographic (PSG) analysis were determined. Methods and  
Results: First, we tried to find the optimal parameters for the  
automated analysis, using 7 different settings in 17 OSAS patients.  
Furthermore, we applied the optimized setting to 66 OSAS patients who  
were admitted (age 50.9 +/- 9.9 years, BMI 32.9 +/- 5 kg/m(2)), and  
compared the results with the visual analysis of raw data. The patients  
slept for one night in the sleep laboratory with Merlin and PSG  
simultaneously to compare the visual and automated analysis of Merlin  
data with results from the visual analysis of PSG. Automated analysis  
leads to an underestimation of the respiratory disturbance index (RDI;  
p < 0.001) compared with both the visual analysis and results of PSG.  
Using a cutoff level of 5 apneas and hypopneas/h for the diagnosis of  
OSAS, the sensitivity of Merlin with the automated analysis is 40.6%  
and the specificity is 100%. With a cutoff level of 15/h, sensitivity  
and specificity rose to 91.3 and 100%, respectively, which is  
comparable to the visual analysis. Conclusion: Merlin is a reliable  
device for detection of sleep-related breathing disorders, but  
recordings should be analyzed visually, especially in patients with a  
low RDI. Copyright (C) 2002 S. Karger AG, Basel.

31/3,AB/5 (Item 2 from file: 34)  
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci  
(c) 2003 Inst for Sci Info. All rts. reserv.

10012888 Genuine Article#: 473KM Number of References: 11  
Title: Clinical validation of the Bedbugg (TM) in detection of obstructive  
sleep apnea (ABSTRACT AVAILABLE)  
Author(s): Claman D (REPRINT) ; Murr A; Trotter K  
Corporate Source: Univ Calif San Francisco, Sleep Disorders Ctr, 1600  
Divisadero St, Room B538/San Francisco//CA/94115 (REPRINT); Univ Calif  
San Francisco, Sleep Disorders Ctr, San Francisco//CA/94115; Univ Calif  
San Francisco, Dept Otolaryngol, San Francisco//CA/94115  
Journal: OTOLARYNGOLOGY-HEAD AND NECK SURGERY, 2001, V125, N3 (SEP), P  
227-230  
ISSN: 0194-5998 Publication date: 20010900  
Publisher: MOSBY, INC, 11830 WESTLINE INDUSTRIAL DR, ST LOUIS, MO  
63146-3318 USA  
Language: English Document Type: ARTICLE  
Abstract: OBJECTIVE: To validate the accuracy of the Bedbugg(TM), a new  
**home monitoring device for diagnosis of**  
obstructive sleep apnea.

STUDY DESIGN AND SETTING: Simultaneous sleep monitoring was  
performed by formal polysomnography and by Bedbugg. Monitoring was  
performed in a university sleep center in 42 subjects who had  
previously been scheduled for polysomnography.

RESULTS: The correlation for the apnea-hypopnea index (AHI) between  
polysomnography and Bedbugg was  $r = 0.96$ . The sensitivity of Bedbugg  
for detecting an AHI  $> 15$  was 85.7%. The specificity of Bedbugg for  
detecting an AHI  $< 15$  was 95.2%.

CONCLUSION: The Bedbugg device provides an accurate assessment of  
the apnea-hypopnea index.

SIGNIFICANCE: Accurate home monitoring for sleep apnea may provide  
access to care for a higher proportion of undiagnosed sleep apnea  
patients.

31/3,AB/6 (Item 1 from file: 35)  
DIALOG(R)File 35:Dissertation Abs Online  
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742675 AAD8107584

EXPERIMENTAL INVESTIGATION OF ENERGY LOSS AND END LOSS PHYSICS IN A LINEAR THETA PINCH

Author: JACOBY, BARRY ALAN

Degree: PH.D.

Year: 1980

Corporate Source/Institution: THE PENNSYLVANIA STATE UNIVERSITY (0176)

Source: VOLUME 41/10-B OF DISSERTATION ABSTRACTS INTERNATIONAL.

PAGE 3816. 194 PAGES

The results of an experimental study of particle and thermal loss processes from a 50-cm long theta pinch are presented. The plasma was generated with a 40-mTorr fill of deuterium in a 3.81 cm radius discharge tube; 67% Z-preionization was followed by a main current discharge that produced a 23-kG peak magnetic field in 4.75 ( $\mu$ )sec. The electron density and temperature in the plasma column at the end of dynamic implosion were characterized by  $1.0 \times 10^{16} \text{ cm}^{-3}$  and 20 eV, respectively. This was followed by adiabatic compression which occurred with the particle and energy loss of interest. The diagnostics employed in this experiment were Thomson scattering, continuum radiation spectroscopy, local magnetic-field probes, local pressure probes, and diamagnetic loops. Axial temperature and density profiles were mapped from the coil into the end region. At positions in the end region 9 cm and 12 cm from the coil end, plasma wall contact occurred; a radial scan of temperature and density was made at these axial positions using Thomson scattering. The particle loss time was definitively **measured** for this **device** using **local diagnostics**. The electron thermal conduction coefficient was also determined, and the value compared well with the classical transport value. Throat phenomena inside the coil were observed. The conversion of thermal energy to flow energy was observed in the axial temperature profile inside the coil. A rarefaction wave whose velocity agreed well with theory was observed inside the coil. Flow velocities both inside and outside the theta-pinch coil were mapped experimentally using the pressure probe and Thomson scattering, providing the first definitive measurement of flow velocities made in a theta pinch.

31/3,AB/7 (Item 1 from file: 94)  
DIALOG(R)File 94:JICST-EPlus  
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05043112 JICST ACCESSION NUMBER: 01A1026167 FILE SEGMENT: JICST-E

**Diagnosis** of power distribution **apparatus** on a pole by thermal  
image processing.

ISHINO RYUICHI (1)

(1) Central Res. Inst. Electric Power Ind., Communication & Information  
Res. Lab., JPN

Denshi Joho Tsushin Gakkai Gijutsu Kenkyu Hokoku(IEIC Technical Report  
(Institute of Electronics, Information and Communication Enginners),  
2001, VOL.101,NO.298(OFS2001 20-28), PAGE.1-8, FIG.14, TBL.1, REF.16

JOURNAL NUMBER: S0532BBG

UNIVERSAL DECIMAL CLASSIFICATION: 621.315/.316 681.3:621.397.3

LANGUAGE: Japanese COUNTRY OF PUBLICATION: Japan

DOCUMENT TYPE: Journal

ARTICLE TYPE: Original paper

MEDIA TYPE: Printed Publication

ABSTRACT: When power distribution **apparatus** is **diagnosis** that  
utilizes thermal images automatically, there are problems, that there  
are many thermal patterns similar to the thermal pattern of a target  
apparatus in a thermal image and temperature around the **apparatus**  
influences **diagnosis** of **apparatus**. In order to solve these  
problems, we developed the new method that the apparatus is extracted  
by using image processing technique based on high order local  
autocorrelation features, the attachment pattern on a pole, and  
disparity map, and each **apparatus** is **diagnosed** in terms of  
**local** temperature gradient. This paper is presented that except  
for the case that the infrared camera's sensitivity is low, field  
experiments confirmed that the proposed method can **detect**  
**faulty apparatuses** such as a pin insulator, a section  
switch and a strain insulator. (author abst.)

31/3,AB/9 (Item 2 from file: 144)  
DIALOG(R)File 144:Pascal  
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12632155 PASCAL No.: 96-0325385

An unattended device for sleep-related breathing disorders : validation study in suspected obstructive sleep apnoea syndrome

ZUCCONI M; FERINI-STRAMBI L; CASTRONOVO V; OLDANI A; SMIRNE S

Sleep Disorders Center, Dept of Neurology, State University and IRCCS H San Raffaele, Milan, Italy

Journal: The European respiratory journal, 1996, 9,(6) 1251-1256

Language: English

Portable **devices** for the **diagnosis** of obstructive sleep apnoea (OSA) are considered to be an acceptable alternative to polysomnography (PSG), but their validation is essential. The aim of our study was to validate a device specifically designed for OSA diagnosis. Twenty nine suspected OSA patients were studied with simultaneous nocturnal PSG and an unattended recording device (MicroDigitrapper-S) (M-S). The **device measured** body position, snoring sound, oronasal flow, thoracic and abdominal effort, heart rate and percentage arterial oxygen saturation (Sa,O SUB 2 %). We compared the apnoea plus hypopnoea index (AHI) and Sa,O SUB 2 % results of PSG with that of the system's automatic analysis (M-SA). We also performed a semiautomatic analysis (M-SS) with visual editing of the raw data. Results at different AHI cut-off levels were analysed to obtain an indication of accuracy in diagnosis and severity. Both M-SA and M-SS showed a sensitivity and specificity of 100% at the cutoff level of AHI >10. When increasing the cutoff levels, M-SA sensitivity decreased (55% for AHI >40), while specificity remained high (95%). This was improved to a clinically acceptable level of agreement by M-SS analysis (sensitivity 91% and specificity 94%). In conclusion, the MicroDigitrapper-S device showed a good sensitivity and specificity for the diagnosis of OSA. However, the device could not predict the severity of OSA precisely enough. In severe cases (apnoea plus hypopnoea index >40), semiautomatic scoring was necessary to obtain a more accurate detection of the severity of the disease.

31/3,AB/10 (Item 3 from file: 144)  
DIALOG(R)File 144:Pascal  
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12190191 PASCAL No.: 95-0405530

Acoustic emission analysis for bearing condition monitoring

LI C J; LI S Y

Changsha inst. technology, dep. precision machinery instruments, Changsha  
, China

Journal: Wear, 1995, 185 (1-2) 67-74

Language: English

For automatic **detection/diagnosis** of **localized defects** in bearings, the utility of advanced signal processing and pattern recognition was established to investigate the acoustic emissions (AE) of bearings. Two normalized and dimensionless features are extracted using short-time signal processing techniques. Employing these two features, linear discriminant functions have been established to **detect defects** on the outer race and rollers of bearings. Based on the experimental data of seeded bearing defects, the technique is significantly superior to state-of-the-art techniques. AE is also found to be a better signal than vibrations when the transducers have to be remotely placed from the bearing. It takes 20 s for data processing and **fault diagnosis** on a PC-AT 386, 6 MHz on-line platform.

31/3,AB/11 (Item 4 from file: 144)  
DIALOG(R)File 144:Pascal  
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11933921 PASCAL No.: 95-0112723

Edge fluctuation measurements by phase contrast imaging on DIII-D

CODA S; PORKOLAB M

Department of Physics and Plasma Fusion Center, Massachusetts Institute of Technology, Cambridge, Massachusetts 02139

Proceedings of the tenth topical conference on high temperature plasma diagnostics (Rochester, New York) 1994-05-08/1994-05-12

Journal: Review of Scientific Instruments, 1995-01, 66 (1) 454-456

Language: English

A novel CO SUB 2 laser phase contrast imaging diagnostic has been developed for the DIII-D tokamak, where it is being employed to investigate density fluctuations at the outer edge of the plasma. This system generates 16-point, 1D images of a 7.6-cm-wide region in the radial direction, and is characterized by long-wavelength (7.6 cm) and high-frequency (100 MHz) capability, as well as excellent sensitivity ( $n^*$  approximately-greater-than  $10^{10}$  SUP 9 cm SUP - SUP 3 ). The effects of vertical line integration have been studied in detail, both analytically and numerically with actual flux surface geometries generated by the EFITD magnetic equilibrium code. It is shown that in the present configuration the measurement is mostly sensitive to radial wave vectors. Experimental results on fluctuation suppression at the L- to H-mode transition and on the L-mode wave number spectrum are discussed briefly. Finally, future plans for extending the measurement to the core of the plasma and for investigating externally launched fast waves are presented. (c) 1995 American Institute of Physics.

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06/04/2003

09/896,790

31/3,AB/12 (Item 1 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
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*Handwritten:* 09/896,790 FYI

015227929

WPI Acc No: 2003-288842/200328

XRPX Acc No: N03-229669

Electronic **device diagnostic** method e.g. for personal  
computer using Internet, involves providing diagnostic procedure to  
control **diagnosis** of electronic **device** by local  
**diagnosing devices** in **home network** system

Patent Assignee: DARA-ABRAMS J (DARA-I); GAUBA R (GAUB-I); GAXIOLA D G  
(GAXI-I); HOFRICHTER K (HOFR-I); OUYANG (OUYA-I)

Inventor: DARA-ABRAMS J; GAUBA R; GAXIOLA D G; HOFRICHTER K; OUYANG J

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20030004680	A1	20030102	US 2001896790	A	20010628	200328 B

Priority Applications (No Type Date): US 2001896790 A 20010628

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
US 20030004680	A1	18	G06F-011/30	

Abstract (Basic): US 20030004680 A1

Abstract (Basic):

NOVELTY - The information indicating problem with the  
**potentially faulty electronic devices**, is  
received through the Internet. A **diagnostic procedure** is  
provided to **control diagnosis** of the electronic  
**devices**, by **local diagnosing devices** in the  
**home network** system.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the  
following:

(1) **apparatus for diagnosing electronic devices**;  
and

(2) **system for diagnosing electronic devices**.

USE - For **diagnosing** electronic **device** such as personal  
computer, workstation, digital television, personal video recorder  
(PVR), set-top box (STB), digital video recorder such as TIVO, game  
device such as Sony play station, personal digital assistant (PDA),  
printer, audio device such as juke box AV system, compact disk (CD)  
player, mini disk (MD) player audio/video (AV) hard drives, camcorder,  
in **home network** system using Internet.

ADVANTAGE - **Faults** of the **electronic devices** are  
rectified locally using inexpensive interface thereby eliminating need  
to find a service center associated with the **faulty device**  
and to ship the **faulty device** to the service center.

DESCRIPTION OF DRAWING(S) - The ~~figure~~ shows the flowchart  
illustrating processes for initiating the **diagnosis** of  
**potentially faulty consumer electronic**  
**device**.

pp; 18 DwgNo 3/8

31/3,AB/14 (Item 3 from file: 350)  
 DIALOG(R)File 350:Derwent WPIX  
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014800038

WPI Acc No: 2002-620744/200267

XRPX Acc No: N02-491335

Communication method between remote **testing device** and IEEE  
 1394 **home network** device involves communicating between  
 communication protocol interface and IEEE 1394 **home network**  
 device based on IEEE 1394 protocol

Patent Assignee: SONY INT EURO GMBH (SONY ); MAYER M (MAYE-I); SZUCS P  
 (SZUC-I)

Inventor: MAYER M; SZUCS P

Number of Countries: 028 Number of Patents: 003

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
EP 1229449	A1	20020807	EP 2001102230	A	20010131	200267 B
JP 2002271361	A	20020920	JP 200221797	A	20020130	200277
US 20020188741	A1	20021212	US 200259991	A	20020129	200301

Priority Applications (No Type Date): EP 2001102230 A 20010131

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
EP 1229449	A1	E	15	G06F-011/273	

Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT  
 LI LT LU LV MC MK NL PT RO SE SI TR

JP 2002271361 A 10 H04L-012/46

US 20020188741 A1 G06F-015/16

Abstract (Basic): EP 1229449 A1

Abstract (Basic):

NOVELTY - Communication between a remote **testing device**  
 and a **home network** communication protocol interface is  
 performed based on a remote communication protocol. Communication  
 between the communication protocol interface and a IEEE 1394 **home**  
**network** device is performed based on a IEEE 1394 low level  
 communication protocol.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the  
 following:

- (1) **Home network** communication protocol interface; and
- (2) Service diagnostic system.

USE - For communication between remote **testing device**  
 and IEEE 1394 **home network** device, for remote  
**controlling** and **diagnosing home network**  
**devices**.

ADVANTAGE - Ensures communication between the remote device and all  
 IEEE 1394 supporting **home network** devices regardless of the  
**home network** communication protocol.

DESCRIPTION OF DRAWING(S) - The figure shows a schematic drawing of  
 the SDI communication mechanism.

pp; 15 DwgNo 3/4

31/3,AB/15 (Item 4 from file: 350)  
 DIALOG(R)File 350:Derwent WPIX  
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014493303

WPI Acc No: 2002-314006/200235

Remotely medical treating system through internet network and method for managing the system

Patent Assignee: LG ELECTRONICS INC (GLDS )

Inventor: KIM G T

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
KR 2001105726	A	20011129	KR 200026457	A	20000517	200235 B

Priority Applications (No Type Date): KR 200026457 A 20000517

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
KR 2001105726	A	1	G06F-017/60	

Abstract (Basic): KR 2001105726 A

Abstract (Basic):

NOVELTY - A remotely medical treating system through an Internet network and a method for managing the system are provided to enable a patient to receive a diagnosis result of a hospital in case that the patient inputs one's objective and subjective symptoms by connecting a cyber hospital homepage to the patient's house or an office and constructing a database based on the diagnosis result.

DETAILED DESCRIPTION - **Home diagnosing devices**  
 (102,103,104) for making a patient connect to a hospital homepage in an office and a house and input symptoms with respect to each disease and for checking a living body symptoms of the patient. A patient computer(105) interfaces with the **diagnosing devices** (102,103,104) and stores and transmits the diagnosis result. A cyber hospital managing server(200) transmits an objective answer to a patient and requests a symptoms **check** using the **diagnosing devices**(102,103,104), and transmits the primary prescription with respect to diagnosis data to a medical institution and transmits the checked result to the patient computer(105). A patient adjacent hospital(300) answers a doctor medical examining result with respect to patient diagnosis data received from the cyber hospital managing server(200). If a special medical examining is necessary, a special hospital(400) answers the result thereof. A drug store(500) prepares a medicine in accordance with the medical examining result being transmitted from the cyber hospital managing server(200) and transmits the medicine to the patient. A medical insurance association(600) pays a medical treating cost of the patient.

pp; 1 DwgNo 1/10

31/3,AB/16 (Item 5 from file: 350)  
 DIALOG(R)File 350:Derwent WPIX  
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009924793

WPI Acc No: 1994-192504/199424

XRPX Acc No: N94-151469

Microwave or ultrasonic localised heating catheter for treating e.g  
 benign prostate hyperplasia or carcinoma - has marker at distal end  
 consisting of spaced bodies having acoustic impedance different from that  
 of local region, for **diagnostic control** using image data

Patent Assignee: SIEMENS AG (SIEI )

Inventor: BUCHHOLTZ G; SCHAETZLE U

Number of Countries: 003 Number of Patents: 004

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
DE 4240722	A1	19940609	DE 4240722	A	19921203	199424 B
FR 2698780	A1	19940610	FR 9313183	A	19931105	199426
US 5409006	A	19950425	US 93151158	A	19931112	199522
DE 4240722	C2	19960829	DE 4240722	A	19921203	199639

Priority Applications (No Type Date): DE 4240722 A 19921203

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
DE 4240722	A1		9	A61B-008/12	
FR 2698780	A1		23	A61B-008/12	
US 5409006	A		10	A61B-008/00	
DE 4240722	C2		9	A61B-008/12	

Abstract (Basic): DE 4240722 A

The catheter (19) enables pathological tissue to be treated with heat using microwaves or ultrasonic waves, under **diagnostic control** via image information provided by a **diagnostic device** which detects **local** variations in a physical or chemical tissue characteristic. The catheter has a marking element (M1, M2) at its distal end, differing from the surrounding tissue in its physical or chemical characteristic.

Pref. the marking element has a different acoustic impedance to the surrounding tissue, and a pair of marking elements are spaced corresponding to the distance between the external and internal sphincter of the patient.

ADVANTAGE Avoids disruption, esp. necrosis, of tissue, e.g sphincter muscles.

Dwg.2/3

Abstract (Equivalent): US 5409006 A

A system for in vivo treatment of pathological tissue comprises a **diagnostic monitoring device** for **monitoring** a region of a patient containing pathological tissue to be treated, adjacent to non-pathological tissue, by obtaining image data corresponding to localized differences in at least one characteristic physiological quantity of the patient. An extracorporeal device charges the pathological tissue with heating radiation and a catheter is adapted for introduction into the patient prior to and during the charging of the pathological tissue with the heating radiation.

The catheter has a distal end which is disposed in the region when

the catheter is introduced into the patient, and has a marking member, disposed at the distal end and differing from tissue in the region surrounding the distal end with regard to the at least one characteristic physiological quantity, for permitting identification of the distal end of the catheter in the image data for providing an indicator in the image data to avoid damage to non-pathological tissue by the heating radiation.

ADVANTAGE - Risk of unintentional vesication, particularly necrotization of tissue due to heating radiation, is at least diminished if not completely avoided.

Dwg.1/3

31/3,AB/18 (Item 7 from file: 350)  
 DIALOG(R)File 350:Derwent WPIX  
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007181661

WPI Acc No: 1987-178670/198726

XRPX Acc No: N87-134072

X-ray **diagnostics device** with **local** frequency high pass filter - produces unwanted signals by compare present and stored previous images at different focal positions

Patent Assignee: SIEMENS AG (SIEI )

Inventor: HAENDLE J

Number of Countries: 002 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
DE 3545348	A	19870625	DE 3545348	A	19851220	198726 B
US 4722097	A	19880126	US 86934811	A	19861125	198807

Priority Applications (No Type Date): DE 3545348 A 19851220

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
DE 3545348	A	4		
US 4722097	A	4		

Abstract (Basic): DE 3545348 A

An x-ray **diagnostic device** with a **local** frequency high pass filter has an X-ray tube (2), a picture amplifier-television chain (4-6), a store (9,10) and a differential stage (11). The latter produces a subtraction picture through forming a difference between a first video signal and an immediately succeeding second video signal, to feed a **monitor device** (13).

A controller (18) is coupled to the X-ray tube (2) to control the size of the tube focus. A video signal is stored (9,10) corresponding to a first size of the tube focus. In the differential stage (11) the stored video signal and a second signal produced after the first, but having a different focussing size are subtracted from each other.

ADVANTAGE - Amplifies fine details without enhancing common-mode noise so as to increase recognisability of details

Abstract (Equivalent): US 4722097 A

The x-ray machine emits a beam to penetrate a patient and has a detector to convert the x-ray image from the beam into electrical signals. The signals are supplied to two image memories (9,10), a device subtracts the contents of one of the image memories from the contents of the other for generating a difference signal which is visually displayed (13).

A focussing current generator (17) is connected to the emitter for changing the size of the focal spot. A controller (18) connected to the generator and the two memories selectively switches between different currents for generating focal spots of two different sizes. The write-in of the electrical signals is simultaneously controlled to the memories using one size of focal spot are entered in one of the memories and signals corresponding to exposures made using the other size are entered in the other.

ADVANTAGE - Fine details in x-ray pictures improved.

06/04/2003

09/896,790

31/3,AB/19 (Item 8 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
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007049136

WPI Acc No: 1987-049133/198707

XRFX Acc No: N87-037213

Multi-channel digital piezo-seismometric spiral - has electronic module  
stop-start generator and sealed differential active filter between  
receiver and commutator

Patent Assignee: KNYAZEV YU A (KNYA-I)

Inventor: KNYAZEV Y U A; MEER V V; NESTERVOI V I

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
SU 1241175	A	19860630	SU 3828113	A	19841224	198707 B

Priority Applications (No Type Date): SU 3828113 A 19841224

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
SU 1241175	A	6		

Abstract (Basic): SU 1241175 A

Piezo-electric seismic receiver (7), differential band elimination filter (34) and electric plug socket (6) and the corresponding conversion units are connected sequentially-parallel relative to the sealing and recording **device** and **local diagnosis** of **faults** is carried out using the filter and a sinusoidal signal generator.

A high logic is passed along the control line and a delay generator is connected, with its first harmonic being separated by a filter and passed to electronic module (8). The active signals pass through A-D converter (14) to the device for analysis. Module (8) and the stop-start generator are sealed in an hermetic container.

USE/ADVANTAGE - Maritime geophysical testing. Preparation, usage and repairs are made possible, coupled with reduction in mass.  
Bul.24/30.6.86. (6pp Dwg.No.1/1

06/04/2003

09/896,790

31/3,AB/20 (Item 1 from file: 347)  
DIALOG(R)File 347:JAPIO  
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07402856

COMMUNICATION METHOD, COMMUNICATION PROTOCOL INTERFACE, REMOTE **TEST**  
**DEVICE** AND SERVICE **DIAGNOSTIC** SYSTEM

PUB. NO.: 2002-271361 [JP 2002271361 A] *du h*  
PUBLISHED: September 20, 2002 (20020920) *2*  
INVENTOR(s): SZUCS PAUL  
APPLICANT(s): ~~SONY~~ MAYER MATTHIAS INTERNATL EUROP GMBH  
APPL. NO.: 2002-021797 [JP 20022021797]  
FILED: January 30, 2002 (20020130)  
PRIORITY: 01 01102230 [EP 2001102230], EP (European Patent Office),  
January 31, 2001 (20010131)

ABSTRACT

PROBLEM TO BE SOLVED: To **diagnose home network**  
**devices** regardless of the network communication protocol which is  
required for communication with each **home network** device  
supporting the IEEE 1394 standard.

SOLUTION: Communication on the basis of a remote communication protocol is  
performed between a remote **test device** and a communication  
protocol interface forming a part of the **home network**, and  
communication is performed between the communication protocol interface and  
IEEE 1394 **home network** devices on the basis of the IEEE 1394  
low-level communication protocol.

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06/04/2003

09/896,790

31/3,AB/21 (Item 2 from file: 347)  
DIALOG(R)File 347:JAPIO  
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06058189

INFORMATION TRANSFER DEVICE AND INFORMATION TRANSMISSION SYSTEM

PUB. NO.: 10-341289 [JP 10341289 A]  
PUBLISHED: December 22, 1998 (19981222)  
INVENTOR(s): OHASHI TADAO  
APPLICANT(s): SANYO ELECTRIC CO LTD [000188] (A Japanese Company or  
Corporation), JP (Japan)  
APPL. NO.: 09-165256 [JP 97165256]  
FILED: June 06, 1997 (19970606)

ABSTRACT

PROBLEM TO BE SOLVED: To provide the information transfer device and information transmission system in which information such as **fault** information of a **device** like a home electric appliance is transmitted without losing the reliability and it is not required to provide a line newly.

SOLUTION: A television receiver A is provided with a power socket 10 into which a plug 38 of a **diagnosed home** appliance electric **device** B is plugged, a power line carrier communication modem 14 that conducts power line carrier communication of prescribed information with the equipment B, and a modem 18 that makes information transmission reception via a telephone line, and the information as to the device specific number and a **fault** position in the **diagnosed** house electric appliance B is sent to the television receiver A by the power line carrier communication and sent to a service center or the like through a telephone line. In the case of receiving the information from the diagnosed house electric appliance B, when a current sensor 12 senses it that the plug 38 is plugged, into the power socket 10, a microprocessor 26 sends an information transmission instruction to the **diagnosed home** electric appliance B.

31/3,AB/22 (Item 3 from file: 347)  
DIALOG(R)File 347:JAPIO  
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05572632

REMOTE MEDICAL **DIAGNOSIS** METHOD AN **APPARATUS** THEREFOR

PUB. NO.: 09-187432 [JP 9187432 A]  
PUBLISHED: July 22, 1997 (19970722)  
INVENTOR(s): NISHI ISAO  
HAYASHI TOKUJI  
APPLICANT(s): UESUTORON KK [000000] (A Japanese Company or Corporation), JP  
(Japan)  
APPL. NO.: 08-002541 [JP 962541]  
FILED: January 10, 1996 (19960110)

ABSTRACT

PROBLEM TO BE SOLVED: To enable **diagnosis** at **home** and obtain information from medical institutions optimal for the condition of a disease based on the result of inspection by a method wherein exhaled gas components are detected and undergoes a signal processing according to the gas components and the results are inputted into a host computer having a disease condition analysis means through a signal line.

SOLUTION: Exhaled gas blown from a person to be examined is outputted as electric signal 2a by an exhaled gas detection means 2 and the signal is processed by a signal processing circuit 3 to be outputted to a host computer 9 through a signal line 8. The host computer 9 compares the outputted data signal with a stored information and provides the data signal identical or almost equivalent to the stored information as medical information. At the same time, associated information such as the name of the disease, the nearest medical institutions and the names of physicians is provided. The signal data sent from the host computer 9 is inputted into a signal processing circuit 3 of a **diagnosing device** 1 through the signal line 8 and outputted to an information display means 4 as a signal assigned to an information display **device** such as a **monitor** or printer.

31/3,AB/23 (Item 4 from file: 347)  
DIALOG(R)File 347:JAPIO  
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03917396

AUTOMATIC PLANT OPERATION SUPERVISING AND **DIAGNOSING DEVICE**

PUB. NO.: 04-282496 [JP 4282496 A]  
PUBLISHED: October 07, 1992 (19921007)  
INVENTOR(s): TAMAOKI TETSUO  
APPLICANT(s): TOSHIBA CORP [000307] (A Japanese Company or Corporation), JP  
(Japan)  
APPL. NO.: 03-044644 [JP 9144644]  
FILED: March 11, 1991 (19910311)  
JOURNAL: Section: P, Section No. 1488, Vol. 17, No. 78, Pg. 138,  
February 16, 1993 (19930216)

## ABSTRACT

PURPOSE: To obtain an automatic plant operation supervising and **diagnosing device** capable of taking **measure** quickly by **diagnosing** the **local** abnormality of plant status within the local region.

CONSTITUTION: A subloop **diagnosis controller** 2 to execute the **control** and **diagnosis** of the subloop by inputting the control operation target for the subloop of a plant 1, present control parameter signal and signals needed for the supervising and diagnosing of the subloop, is constituted of an manipulated-variable calculator for calculating the manipulated variables from the control parameter signal and the control operation target value following a certain control rule a subloop model calculator for calculating the difference between the supervising signal measurement value of the subloop and the supervising signal prediction value predicted based on a subloop model, a diagnosing part for judging the status of the subloop from a supervision index pattern and the above calculated manipulated-variables, and a operation parameter determination part for determining the control and operation parameters according to the diagnosis result.

31/3,AB/24 (Item 5 from file: 347)  
DIALOG(R)File 347:JAPIO  
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03417892

**FAULT DIAGNOSTIC DEVICE FOR HOME BUS SYSTEM**

PUB. NO.: 03-080792 [JP 3080792 A]  
PUBLISHED: April 05, 1991 (19910405)  
INVENTOR(s): NAKAYA TAKAITSU  
APPLICANT(s): SHARP CORP [000504] (A Japanese Company or Corporation), JP  
(Japan)  
APPL. NO.: 01-219158 [JP 89219158]  
FILED: August 24, 1989 (19890824)  
JOURNAL: Section: E, Section No. 1083, Vol. 15, No. 254, Pg. 57, June  
27, 1991 (19910627)

**ABSTRACT**

**PURPOSE:** To quickly and precisely **diagnose** the **fault** and mode of a terminal including the one scheduled to be added and to immediately provide a fault countermeasure for recovery and remedy, etc., by using an IC card capable of storing a **fault diagnostic** program and **diagnostic** result data.

**CONSTITUTION:** When the IC card 17 storing the **fault diagnostic** program is inserted to the IC card input/output device 16 of a home controller 8, the CPU 12 of the home controller 8 reads out the **fault diagnostic** program from the IC card 17 via the IC card input/output device 16, and stores it in a program memory 15, and also, performs the **fault diagnosis** of the terminals 3, 5, 6, and 7 based on the **fault diagnostic** program at every prescribed time, and writes **diagnostic** result information including **faulty** data and the terminal state information of each terminal just before the occurrence of a fault on the IC card 17 via the IC card input/output device 16. When the **fault** occurs in the terminal, a maintenance engineer extracts the IC card 17 inserted to the IC card input/output device 16 of the home controller 8, and inserts it to an electronic pocketbook to decode the diagnostic result information.

37/3,AB/1 (Item 1 from file: 6)  
DIALOG(R)File 6:NTIS  
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1224617 NTIS Accession Number: DE86003899

User Interface on Networked Workstations for MFTF Plasma Diagnostic Instruments

Renbarger, V. L. ; Balch, T. R.  
Lawrence Livermore National Lab., CA.  
Corp. Source Codes: 068147000; 9513035  
Sponsor: Department of Energy, Washington, DC.  
Report No.: UCRL-92588; CONF-851102-24  
2 Oct 85 7p

Languages: English Document Type: Conference proceeding

Journal Announcement: GRAI8608; NSA1100

11. symposium on engineering problems in fusion research, Austin, TX, USA, 18 Nov 1985.

Portions of this document are illegible in microfiche products. Order this product from NTIS by: phone at 1-800-553-NTIS (U.S. customers); (703)605-6000 (other countries); fax at (703)321-8547; and email at orders@ntis.fedworld.gov. NTIS is located at 5285 Port Royal Road, Springfield, VA, 22161, USA.

NTIS Prices: PC A02/MF A01

A network of Sun-2/170 workstations is used to provide an interface to the MFTF-B Plasma Diagnostics System at Lawrence Livermore National Laboratory. The Plasma Diagnostics System (PDS) is responsible for control of MFTF-B plasma **diagnostic** instrumentation. An Ethernet **Local Area Network** links the workstations to a central multiprocessing system which furnishes data processing, data storage and control services for PDS. These workstations permit a physicist to command data acquisition, data processing, instrument control, and display of results. The interface is implemented as a metaphorical desktop, which helps the operator form a mental model of how the system works. As on a real desktop, functions are provided by sheets of paper (windows on a CRT screen) called worksheets. The worksheets may be invoked by pop-up menus and may be manipulated with a mouse. These worksheets are actually tasks that communicate with other tasks running in the central computer system. By making entries in the appropriate worksheet, a physicist may specify data acquisition or processing, **control** a **diagnostic**, or view a result. (ERA citation 11:010645)

06/04/2003

09/896,790

37/3,AB/2 (Item 1 from file: 344)  
DIALOG(R)File 344:Chinese Patents Abs  
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Acc no: 4202552

LOCAL DEVICE AND PROCESS DIAGNOSTICS IN PROCESS CONTROL NETWORK HAVING  
DISTRIBUTED CONTROL FUNCTIONS

Patent Assignee: FISHER CONTROLS INT (US)

Author (Inventor): B. H. LARSON (US); H. A. BURNS (US); L. K. BROWN (US)

Patent Family:

CC	Number	Kind	Date
	CN 1232553	A	19991020 (Basic)
	AL 9814848	W1	19980409

45/3,AB/1 (Item 1 from file: 2)  
DIALOG(R)File 2:INSPEC  
(c) 2003 Institution of Electrical Engineers. All rts. reserv.

7327574 INSPEC Abstract Number: B2002-08-0100-102, C2002-08-1230D-054  
Title: Proceedings of the 2002 International Joint Conference on Neural Networks. IJCNN'02 (Cat. No.02CH37290)

Part vol.1

Publisher: IEEE, Piscataway, NJ, USA

Publication Date: 2002 Country of Publication: USA 3 vol.xlviii+2934

pp.

ISBN: 0 7803 7278 6 Material Identity Number: XX-2002-00429

U.S. Copyright Clearance Center Code: 02/\$10.00

Conference Title: Proceedings of 2002 International Joint Conference on Neural Networks (IJCNN)

Conference Sponsor: IEEE; IEEE Neural Networks Soc. (NNS); Int. Neural Network Soc

Conference Date: 12-17 May 2002 Conference Location: Honolulu, HI, USA

Language: English

Abstract: The following topics are dealt with: neuroinformatics; radial basis functions; neurobiology and neural modelling; robotics; speech processing; chemical and petroleum industry applications; graph theory and neural nets; control; bioinformatics; ensemble learning; computational geometry and neural networks; power systems; intelligent signal processing for wireless communications; time series modelling and forecasting; artificial neural networks for environmental data processing and interpretation; advances in independent component analysis; supervised learning; competitive learning; feature extraction; medical applications; spiking neurons; forecasting; intrusion detection and computer security; rule extraction; self-organizing maps; adaptive critic designs; military and security applications (nautical, aviation, surveillance and nuclear); trading strategies and market behaviour modelling; optimization; cellular neural network computing and topographic array microprocessors; function approximation; information-theoretic neural networks; agents, games and Internet applications; recurrent networks; texture segmentation; **diagnostics** and **quality control**; extended Kalman filters; video compression via radio; neural network applications for industrial power systems; foreign exchange and stock markets; wavelets; support vector machines; clustering; arbitrage pricing, portfolio management and financial distress; context and experience dependence in the dynamics of perception and decision-making; implementation, hardware and design tools; human-computer interaction; automotive industry applications; fuzzy neural networks; connectionist methods; face recognition; stability and convergence; **consumer electronics** and hand-held computing applications; Bayesian and probabilistic methods; adaptive resonance theory; neural network topology; chaotic systems; control of multiple autonomous agents; advances in ART neural network theory and applications; Hopfield networks; neural networks and evolutionary computation; telecommunications; learning models; and applications of computational intelligence in the aerospace industry.

Subfile: B C

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45/3,AB/2 (Item 2 from file: 2)  
DIALOG(R)File 2:INSPEC  
(c) 2003 Institution of Electrical Engineers. All rts. reserv.

04293519 INSPEC Abstract Number: C9301-7420-013

Title: Fuzzy logic is clearly here to stay

Author(s): Bartos, F.J.

Journal: Control Engineering vol.39, no.9 p.45-7

Publication Date: July 1992 Country of Publication: USA

CODEN: CENGAX ISSN: 0010-8049

Language: English

Abstract: Fuzzy logic offers several benefits to controls. It does not rely on complex mathematical equations or extensive look-up tables, and has greater tolerance of 'noisy' signals than traditional control methods. The 'fuzzy approach' uses intuitive human expertise to help solve the problem at hand. In the product arena, **consumer electronics** and appliances have drawn much of the attention, but automotive and industrial process applications are expanding the **control** and **diagnostic** horizons of fuzzy logic. Indeed, one of its earliest commercial uses was in the control of cement kilns. Today, manufacturers of distributed control systems, programmable controllers, and microcontrollers are incorporating fuzzy logic into their products and market strategies. At the same time, growing numbers of software companies are adding tools to make fuzzy logic easier to use and apply. The author looks at examples of how fuzzy logic is being incorporated in various products.

Subfile: C



45/3,AB/3 (Item 3 from file: 2)  
DIALOG(R)File 2:INSPEC  
(c) 2003 Institution of Electrical Engineers. All rts. reserv.

02095529 INSPEC Abstract Number: B83045701

Title: Optical data storage technology for **consumer electronics**

Author(s): Huijser, A.; Carasso, M.G.

Author Affiliation: Philips Res. Labs., Eindhoven, Netherlands

Conference Title: Topical Meeting on Optical Data Storage p.MA4/1-2

Publisher: Opt. Soc. America, Washington, DC, USA

Publication Date: 1983 Country of Publication: USA 200 pp.

Conference Sponsor: Opt. Soc. America; American Vacuum Soc.; et al

Conference Date: 17-20 Jan. 1983 Conference Location: Incline Village, NV, USA

Language: English

Abstract: The implementation of optical recording technology in consumer products is illustrated by a review of the LaserVision video disc and Compact Disc digital audio systems. Examples of actuators, optical designs and signal processing are reviewed. Methods for disc production are discussed, with special emphasis on test methods for diagnostic analysis and end control. Some results with erasable recording on magnetooptic and chalcogenide materials, usable, for example, for future home recording of digital sound, will be presented.

Subfile: B

45/3,AB/4 (Item 1 from file: 8)  
DIALOG(R)File 8:Ei Compendex(R)  
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06201912

E.I. No: EIP02467205195

Title: A practical approach for large-scale **controller** performance  
assessment, **diagnosis**, and improvement

Author: Paulonis, Michael A.; Cox, John W.

Corporate Source: Eastman Chemical Company, Kingsport, TN 37662, United  
States

Source: Journal of Process Control v 13 n 2 March 2003. p 155-168

Publication Year: 2003

CODEN: JPCOEO ISSN: 0959-1524

Language: English

Abstract: Eastman Chemical Company has developed a large-scale controller performance assessment system spanning over 14,000 PID controllers in 40 plants at 9 sites worldwide. Controllers can be sorted in order of performance to quickly identify which need attention. Performance history is available to track improvement or degradation in performance for a single controller or an entire plant. Diagnostic aids are available for both novices and experts to substantially reduce troubleshooting time. E-mail reports are automatically generated and sent to subscribers to keep them informed of relevant changes with minimal investment of their time. The user interface is web-based to allow universal access to any employee. Use of the system has dramatically increased controller optimization productivity. copy 2002 Elsevier Science Ltd. All rights reserved. 14  
Refs.

45/3,AB/5 (Item 2 from file: 8)  
DIALOG(R)File 8: Ei Compendex(R)  
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06078241

E.I. No: EIP02266996243

Title: Proceedings of the 2002 International Joint Conference on Neural Networks

Author: Anon (Ed.)

Conference Title: 2002 International Joint Conference on Neural Networks (IJCNN'02)

Conference Location: Honolulu, HI, United States Conference Date: 20020512-20020517

E.I. Conference No.: 59177

Source: Proceedings of the International Joint Conference on Neural Networks v 3 2002. 940p (IEEE cat n 02ch37290)

Publication Year: 2002

CODEN: 85OFAE

Language: English

Abstract: This Volume 3 of 3 of the conference proceedings contains 164 papers. Topics discussed include information theoretic neural networks, agents, games, internet applications, recurrent networks, computing and topographic array microprocessors, texture segmentation, **diagnostic** and quality **control**, extended Kalman filter, video compression via radio, neural network applications for industrial power systems, foreign exchange and stock markets, wavelets, support vector machines, clustering, tool for visual assessment of cluster tendency, arbitrage pricing, portfolio management and financial distress, context and experience dependence in the dynamics of perception and decision, human-computer interaction, auto industry applications, fuzzy neural networks, support vector machines, face recognition, stability and convergence, **consumer electronics** and handheld computing applications, Bayesian and probabilistic methods, time series modeling and forecasting, adaptive resonance theory, neural network topology, chaotic systems, control of multiple autonomous agents, military and security applications, Hopfield networks, learning models, application of computational intelligence in aerospace industry. (Edited abstract)

45/3,AB/6 (Item 1 from file: 144)  
DIALOG(R)File 144:Pascal  
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08893528 PASCAL No.: 90-0061508  
Technique de controle-commande dans les tableaux de distribution a basse  
tension  
MULLER G  
Journal: Revue ABB, 1989 (5) 19-22  
Language: French  
Le systeme INSUM, a base de microprocesseurs, est dote de fonctionnalites  
multiples: protection, commande, controle et mesure. Il offre une large  
independance a l'egard des caracteristiques nominales de moteurs et une  
haute disponibilite pour autosurveillance et autodiagnostic. Il synthetise  
la combinaison d'appareils separes les plus divers qui etaient beaucoup  
trop dependants des caracteristiques nominales du moteur

45/3,AB/7 (Item 1 from file: 350)  
 DIALOG(R)File 350:Derwent WPIX  
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014333597

WPI Acc No: 2002-154300/200220

Related WPI Acc No: 2001-521770

XRPX Acc No: N02-117381

Application program interface access management method in walled garden program, involves determining whether value in received message indicates that origination of message has right to execute called function

Patent Assignee: AT HOME CORP (ATHO-N)

Inventor: BROWN R W; KELLER R; MEDIN M S; TEMKIN D

Number of Countries: 021 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200133340	A2	20010510	WO 2000US41426	A	20001023	200220 B
AU 200122996	A	20010514	AU 200122996	A	20001023	200220

Priority Applications (No Type Date): US 99428235 A 19991026; US 99427778 A 19991026

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
WO 200133340	A2	E	44	G06F-009/00	

Designated States (National): AU CA JP

Designated States (Regional): AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE

AU 200122996 A G06F-009/00 Based on patent WO 200133340

Abstract (Basic): WO 200133340 A2

Abstract (Basic):

NOVELTY - One module receives message containing code calling function in application program interface (API) and values indicating API function execution rights of message originator. Another module determines whether value indicates that message originator has right to execute called function. Another module sends response to originator whether code successfully called the function.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for application program interface access management system.

USE - For managing access of application program interface that allow program to change television channel to which client is tuned, inquire about details of channel line up, access an electronic program guide stored by client, instantiate universal interface elements on television, retrieve information about **user** accounts, access **electronic** wallet functionality in client to conduct electronic commerce transactions, set remainders for display on television and print pages on printer coupled to client, controls sealing of broadcast video picture on television, accessing setting stored by clients including user preferences, bookmarks, parental **controls** and **diagnostics** in high speed data networks such as walled gardens.

ADVANTAGE - Masquerading or spoofing is prevented as only authenticated and authorized users are allowed to access servers within walled garden.

DESCRIPTION OF DRAWING(S) - The figure shows the block diagram of high level view of network architecture.

pp; 44 DwgNo 1/9

45/3,AB/8 (Item 2 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
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010391402

WPI Acc No: 1995-292716/199538

XRPX Acc No: N95-221411

Vehicle wheels alignment diagnosing system - uses input device which is manually operated by user to provide input from **user** to

**electronic** controller

Patent Assignee: HUNTER ENG CO (HUNT-N)

Inventor: LARSON T A

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 5442549	A	19950815	US 9373185	A	19930608	199538 B

Priority Applications (No Type Date): US 9373185 A 19930608

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
US 5442549	A	14	G01B-005/20	

Abstract (Basic): US 5442549 A

The system includes a digital memory for storing a number of likely causes for each of a set number of selectable symptoms. A display is operatively connected to the electronic **controller** for displaying **diagnostic** questions to the **user**. The **electronic** controller is responsive to the selection of a particular symptom to cause the display to display at least one diagnostic question associated with that symptom to the user.

The input device is operable by the user to supply an answer to the diagnostic question to the electronic controller. The latter is responsive to user provided input in response to at least one diagnostic question, to the likely causes stored in the digital memory, and to data from the vehicle wheel alignment measuring instruments to eliminate at least one likely cause of a symptom from consideration and identify any remaining likely causes of the symptom.

USE/ADVANTAGE - For testing vehicle suspension. Reduced technician uncertainty, while instructing person testing vehicle for performing various diagnostic procedures.

Dwg.1/10

45/3,AB/9 (Item 1 from file: 347)  
DIALOG(R)File 347:JAPIO  
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06898353

METHOD AND SYSTEM FOR OPERATING REMOTE **DIAGNOSIS AND CONTROL**  
AND INFORMATION COLLECTION BASED ON VARIOUS COMMUNICATION MODE FOR  
TRANSMITTING MESSAGE TO USER

PUB. NO.: 2001-125863 [JP 2001125863 A]  
PUBLISHED: May 11, 2001 (20010511)  
INVENTOR(s): MOTOYAMA TETSURO  
NIRO MASAKAZU  
APPLICANT(s): RICOH CO LTD  
APPL. NO.: 2000-250302 [JP 2000250302]  
FILED: August 21, 2000 (20000821)  
PRIORITY: 99 407769 [US 99407769], US (United States of America),  
September 29, 1999 (19990929)

#### ABSTRACT

PROBLEM TO BE SOLVED: To provide a system for transmitting an electronic network message related with the using situation of a network resource to an end **user** by using an **electronic** network message or an electronic mail.

SOLUTION: When it is judged that information related with the using situation of a network resource by a specific end user is included in an electronic network message, communication information is transmitted from a computer to an end user. A message related with the using situation of the device by the specific end user is transmitted from the device to a resource controller or from the device through a fire wall to a service center. In some resources, this task is executed by a device driver.

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50/3,AB/1 (Item 1 from file: 2)  
DIALOG(R)File 2:INSPEC  
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5693175 INSPEC Abstract Number: B9710-8150-012, C9710-7410B-107

Title: Fuzzy expert system for **fault diagnosis** in power systems

Author(s): Chang, C.S.; Chen, J.M.; Liew, A.C.; Srinivasan, D.; Wen, F.S.

Author Affiliation: Dept. of Electr. Eng., Nat. Univ. of Singapore, Singapore

Journal: Engineering Intelligent Systems for Electrical Engineering and Communications vol.5, no.2 p.75-81

Publisher: CRL Publishing,

Publication Date: June 1997 Country of Publication: UK

CODEN: EISCFX ISSN: 0969-1170

SICI: 0969-1170(199706)5:2L:75:FESF;1-2

Material Identity Number: F159-97003

Language: English

Abstract: **Fault diagnosis** of power system plays a crucial role in power system monitoring and control that ensures a stable supply of electrical power to **consumers**. In the case of multiple faults or incorrect operation of protective **devices**, **fault diagnosis** requires judgment of complex conditions of various levels, especially considering the unavoidable uncertainties that occur during operation involving the fault location and other information available. This paper presents a methodology for **fault diagnosis** for complex electrical power systems, which is based on fuzzy logic and an expert system to deal with the uncertainties. Expert knowledge concerning normal and faulted operation is acquired via knowledge acquisition techniques. A fuzzy logic expert system for **fault diagnosis** of power system is developed which uses as input status change of the operated circuit breakers and relays. The fuzzy expert system requires much less memory space to store active databases than those used by conventional expert systems. The fuzzy expert system first identifies a short list of **possible fault** sections and deals with one **possible fault** section at a time. It then conducts inference to determine the most likely fault sections and the associated fault section sequences. Several study cases are given to demonstrate salient features of the proposed method.

Subfile: B C

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06/04/2003

09/896,790

54/3,AB/1 (Item 1 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
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008540885

WPI Acc No: 1991-044948/199107

XPX Acc No: N91-034989

Fully **electronic** ignition system for IC engine - includes  
programmable transistor circuit switched at multiple of frequency of  
ignition sequence

Patent Assignee: VOLKSWAGEN AG (VOLS )

Inventor: STAMM K; VOMHAGEN S; VOM HAGEN S; VOM HAGEN S G

Number of Countries: 014 Number of Patents: 006

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
DE 3924985	A	19910207	DE 3924985	A	19890728	199107 B
WO 9102153	A	19910221				199110
EP 484357	A	19920513	EP 90910693	A	19900720	199220
DE 3924985	C	19921119	DE 3924985	A	19890728	199247
JP 4506989	W	19921203	JP 90509987	A	19900720	199303
			WO 90EP1192	A	19900720	
US 5188088	A	19930223	WO 90EP1192	A	19900720	199310
			US 92828914	A	19920128	

Priority Applications (No Type Date): DE 3924985 A 19890728

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
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WO 9102153	A				
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Designated States (National): JP

Designated States (Regional): AT BE CH DE DK ES FR GB IT LU NL SE

EP 484357	A	G	32		
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Designated States (Regional): DE ES FR IT SE

DE 3924985	C		7	F02P-003/00	
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JP 4506989	W		9	F02P-003/00	Based on patent WO 9102153
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US 5188088	A		16	F02P-003/08	Based on patent WO 9102153
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Abstract (Basic): DE 3924985 A

The spark plugs (30-33) in respective cylinders are provided with individual h.v. capacitor discharge circuits including ignition coils (40-43) whose prim. windings are supplied from a DC voltage converter (49) via a capacitor (50) discharged by a shunt' thyristor (51).

Firing of the thyristor is timed by a controller (145) driving a trigger (147) in response to a Hall effect transducer (146). All ignition circuits share a common programmable transistor (38) and output transformer (37) with **diagnostic device** (D).

ADVANTAGE - Trouble-free and precise ignition is secured even with weak fuel/air mixts. **Faults** can be **diagnosed** and countermeasures applied easily. (16pp Dwg.No.2/29)

Abstract (Equivalent): DE 3924985 C

The complete **electronic** ignition system for a multicylinder IC engine uses a separate triggered spark generator circuit (44 to 47) for each sparkplug (30 to 33). A common spark energy source (36) supplies the spark generators (44 to 47) and is in turn subject to the relevant engine/atmospheric parameters. The individual spark generators (44 to 47) comprise high voltage capacitor circuits with the output transformers (40 to 43) whose secondary windings feed the spark plugs (30 to 33).

The common energy source (36) is formed by a programmable thyristor, firing circuit with an output transformer (37) whose secondary energises the transformers (40 to 43) in response to primary pulsing signals from an **electronic** switch.

USE/ADVANTAGE - Provides accurately timed energy controlled ignition sequence without recourse to mechanical distributor. Is particularly suitable for lean-burn i.e. weak fuel/air mixtures characteristic of modern engine design. Has simple **diagnostic potential** for **faults** in ignition system.

Dwg.2/29

Abstract (Equivalent):·US 5188088 A

The **electronic** ignition system provides precisely timed spark plug ignition and provides an optimal supply of ignition energy for the required operating mode by including a programmable transistor ignition system ('PTI') controllable according to engine operating parameters which can execute a joint program for all spark plugs. The PTI is connected in series with high-voltage capacitor ignition devices associated with the individual spark plugs and supplies ignition energy to them repeatedly during each ignition process.

ADVANTAGE - Uses standard ignition components.

Dwg.2/29

54/3,AB/2 (Item 1 from file: 347)  
DIALOG(R)File 347:JAPIO  
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05616129

METHOD AND DEVICE FOR DIAGNOSING FAULT OF ON-VEHICLE  
CONTROLLER

PUB. NO.: 09-230929 [JP 9230929 A]  
PUBLISHED: September 05, 1997 (19970905)  
INVENTOR(s): MURAKAMI KEISHIN  
APPLICANT(s): KOMATSU LTD [000123] (A Japanese Company or Corporation), JP  
(Japan)  
APPL. NO.: 08-055367 [JP 9655367]  
FILED: February 20, 1996 (19960220)

## ABSTRACT

PROBLEM TO BE SOLVED: To make it **possible** to store correct **fault** history data without recording the same fault contents with a unrepaired fault in the fault history data even when the power source is turned on without repairing the fault after the power source is turned off while the fault is existent.

SOLUTION: When the occurrence time and contents of a fault occurring to a vehicle are recorded as **fault** history data, the **detected** **fault** contents are stored as the fault history data only the case where fault contents generated when the on-vehicle controller is powered off differs from **fault** contents **detected** by a **fault diagnosis** after the controller is powered on. Further, it is judged whether or not a fault factor occurring at the power-off time is removed when a **fault diagnosis** of the on-vehicle controller is taken at its power-on time and when so, it is judged that the fault factor occurring at the power-on time is completely repaired, so that this result is stored as the fault history data.

54/3,AB/3 (Item 2 from file: 347)  
DIALOG(R)File 347:JAPIO  
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00736851

**DIAGNOSTIC DEVICE**

PUB. NO.: 56-057151 [JP 56057151 A]  
PUBLISHED: May 19, 1981 (19810519)  
INVENTOR(s): NAGASHIMA SUNAO  
APPLICANT(s): CANON INC [000100] (A Japanese Company or Corporation), JP  
(Japan)  
APPL. NO.: 54-132075 [JP 79132075]  
FILED: October 13, 1979 (19791013)  
JOURNAL: Section: P, Section No. 72, Vol. 05, No. 115, Pg. 144, July  
24, 1981 (19810724)

**ABSTRACT**

**PURPOSE:** To inspect the measure **potential** to make **fault diagnosis possible**, by designating respective output values by a change-over switch to display the output value by an LED in case that the control state of the computer which processes plural signals generated at different timing is diagnosed.

**CONSTITUTION:** The output of potentiometer 67 is converted to a digital value by the A/D converter incorporated in the digital computer, and output values of the A/D converter at different timing are stored in the computer. Respective output values are designated by a changeover switch, and the output value is displayed digitally on a basis of designation by the LED. As a result the measure potential can be inspected easily without external measuring devices for voltage calculation and so on only by switching the switch as a designating means. Further, since potentials generated at different timing can be inspected easily, the fault of the device equipped with the potential detector can be diagnosed

55/3,AB/1 (Item 1 from file: 2)  
DIALOG(R)File 2:INSPEC  
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7348894 INSPEC Abstract Number: B2002-09-2160-001

Title: Non-destructive diagnostic facilities for cable systems  
Author(s): Cornelissen, C.; Schnettler, A.  
Author Affiliation: Inst. for High Voltage Technol., Aachen, Germany  
Conference Title: Conference Record of the the 2002 IEEE International  
Symposium on Electrical Insulation (Cat. No.02CH37316) p.557-60  
Publisher: IEEE, Piscataway, NJ, USA  
Publication Date: 2002 Country of Publication: USA 590 pp.  
ISBN: 0 7803 7337 5 Material Identity Number: XX-2002-01023  
U.S. Copyright Clearance Center Code: 0-7803-7337-5/02/\$17.00  
Conference Title: Conference Record of the 2002 IEEE International  
Symposium on Electrical Insulation  
Conference Sponsor: IEEE; Dielectrics & Electr. Insulation Soc  
Conference Date: 7-10 April 2002 Conference Location: Boston, MA, USA  
Language: English

Abstract: Polymeric materials like polyethylene and silicone rubber used in cables, joints and terminations show an electrical aging behavior. Considering the consequences of dielectric aging, effective diagnostic facilities are currently required, which have to be primarily nondestructive and which should **detect** as many **faults** as **possible**. Based on previous experiences it can be expected, that ultrasonic measurements and nuclear magnetic resonance (NMR) investigations fulfill these requirements. In addition the possible use of these facilities for quality management is presently being investigated. The increasing miniaturization, combined with the possible application of mobile **diagnostic devices**, is taken into account. First results show the feasible use of these facilities for detecting inhomogeneities like impurities and electrical trees in the insulation material and for identifying variations of the cross-link density.

Subfile: B  
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55/3,AB/2 (Item 2 from file: 2)  
DIALOG(R)File 2:INSPEC  
(c) 2003 Institution of Electrical Engineers. All rts. reserv.

7077867 INSPEC Abstract Number: C2001-12-7440-038  
Title: An efficient expert system for air compressor troubleshooting  
Author(s): Shu-Chu Liu; Shih-Yaug Liu  
Author Affiliation: Dept. of Manage. Inf. Syst., Nat. Pingtung Univ. of  
Sci. & Technol., Taiwan  
Journal: Expert Systems vol.18, no.4 p.203-14  
Publisher: Blackwell Publishers,  
Publication Date: Sept. 2001 Country of Publication: UK  
CODEN: EXSYEX ISSN: 0266-4720  
SICI: 0266-4720(200109)18:4L:203:EESC;1-G  
Material Identity Number: H558-2001-005  
Language: English  
Abstract: An expert system for automobile air compressor troubleshooting  
(ACTS) is presented. This system can assist users to conduct an efficient  
and effective diagnosis on air compressor failures. Unlike most diagnosis  
expert systems, ACTS uses a new control strategy to enhance the efficiency  
of the diagnostic process. This control strategy attempts to spend the  
least amount of time to **detect** the compressor **fault** accurately  
by investigating only portions of the knowledge base. ACTS first constructs  
a diagnostic tree based on the functions or connectivity of the air  
compressor's devices. A fuzzy multiple-attribute decision-making method is  
used to determine the priority of the nodes (**devices**) in the  
**diagnostic** tree. The prioritized result creates a 'meta knowledge  
base' to control the diagnostic process. In addition, each node possesses  
its own knowledge base for hypothesizing the **possible faults**  
for the node. ACTS, written in MS Visual BASIC, has been successfully  
developed and implemented in MS-Windows environment on a PC. To validate  
the system performance, ACTS is compared to EXACT, an expert system for  
automobile air compressor troubleshooting, using 50 sample cases. The  
evaluation results indicate that ACTS performs better than EXACT by  
reducing the number of queries and the diagnosis time by 20.7% and 24.9%,  
respectively.  
Subfile: C  
Copyright 2001, IEE

55/3,AB/3 (Item 3 from file: 2)  
DIALOG(R)File 2:INSPEC  
(c) 2003 Institution of Electrical Engineers. All rts. reserv.

5527498 INSPEC Abstract Number: C9704-6170-021

Title: Generating and testing fault hypotheses with MODEST

Author(s): Purna, Y.W.; Yamaguchi, T.

Author Affiliation: Dept. of Comput. Sci., Shizuoka Univ., Hamamatsu, Japan

Conference Title: Critical Technology: Proceedings of the Third World Congress on Expert Systems Part vol.2 p.954-61 vol.2

Editor(s): Lee, J.K.; Liebowitz, J.; Chae, Y.M.

Publisher: Cognizant Commun. Corp, New York, NY, USA

Publication Date: 1996 Country of Publication: USA 2 vol.  
(xviii+1384) pp.

Material Identity Number: XX97-00610

Conference Title: Third World Congress on Expert Systems

Conference Date: 5-9 Feb. 1996 Conference Location: Seoul, South Korea

Language: English

Abstract: MODEST (MODEL-based diagnostic expert SYstem) is a diagnostic expert system that has been being built for the purpose of providing a robust framework for diagnostic expert systems. It is built based on a paradigm of model-based diagnosis dividing the task of diagnosis into three subtasks, namely hypothesis generation, hypothesis testing, and hypothesis classification. It exploits multifarious knowledge and strategies to perform each subtask. In generating fault hypotheses, MODEST makes use of the domain model as well as the additional domain knowledge of the **device to be diagnosed**. It also applies diagnostic strategies in order to **diagnose faults**. ~~To test generated fault hypotheses, MODEST exploits a method identifying types of inconsistent fault hypotheses into two types: pseudo fault hypotheses and contradicting fault hypotheses, and pruning them based on those two types.~~ The hypothesis generation and testing parts of MODEST have been successfully carried out using SICStus Prolog running on a SUN4 and tested in **diagnosing possible faults** in the domain of refrigeration plants with promising results. In this paper, the hypothesis generation and testing methods of MODEST are concisely described, and its current implementation is briefly explained. Furthermore, the demonstration of MODEST in **diagnosing a fault** in the aforementioned domain is presented.

Subfile: C

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55/3,AB/4 (Item 4 from file: 2)  
DIALOG(R)File 2:INSPEC  
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4957479 INSPEC Abstract Number: C9507-6170K-017

Title: Hypothesis generation and testing in MODEST

Author(s): Purna, Y.W.; Yamaguchi, T.

Author Affiliation: Dept. of Comput. Sci., Shizuoka Univ., Japan

Conference Title: PRICAI-94. Proceedings of the 3rd Pacific Rim  
International Conference on Artificial Intelligence Part vol.1 p.  
106-12 vol.1

Publisher: Int. Acad. Publishers, Beijing, China

Publication Date: 1994 Country of Publication: China 2 vol. xi+1106  
pp.

Conference Title: PRICAI-94. Proceedings of the 3rd Pacific Rim  
International Conference on Artificial Intelligence

Conference Sponsor: China Comput. Federation; Chinese Assoc. Autom

Conference Date: 15-18 Aug. 1994 Conference Location: Beijing, China

Language: English

Abstract: MODEST (Model-based Diagnostic Expert System) is a diagnostic expert system that has been being built for the purpose of providing a robust framework for diagnostic expert systems. It is built based on a paradigm on model-based diagnosis dividing the task of diagnosis into three subtasks, namely hypothesis generation, hypothesis testing, and hypothesis classification, and exploiting multifarious knowledge and strategies to perform each subtask. In generating fault hypotheses, MODEST makes use of the device model, process model, and topological relative position of the domain model of the **device** to be **diagnosed** as well as the heuristics and naive physics of the additional domain knowledge of the device. It also applies the qualitative value propagation, direct path of causality, and structural fault localization as strategies for **diagnosing faults**. To test generated fault hypotheses, MODEST exploits a method **identifying** types of inconsistent **fault** hypotheses into two types: pseudo fault hypotheses and contradicting fault hypotheses, and pruning them based on those two types. The hypothesis generation and testing parts of MODEST have been successfully carried out using SICS-tus Prolog running on a SUN4 and tested in **diagnosing possible faults** in the domain of refrigeration plants with promising results. In this paper, those hypothesis generation and testing methods of MODEST are concisely described, and its current implementation is briefly explained. Furthermore, the demonstration of MODEST in **diagnosing a fault** in the aforementioned domain is presented as well.

Subfile: C

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55/3,AB/5 (Item 5 from file: 2)  
DIALOG(R)File 2:INSPEC  
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4857570 INSPEC Abstract Number: C9502-6170K-091  
Title: Model-based diagnosis directed by heuristic search  
Author(s): Hofmann, M.O.  
Author Affiliation: Dept. of Electr. & Comput. Eng., Alabama Univ.,  
Huntsville, AL, USA  
p.197-203  
Publisher: IEEE Comput. Soc. Press, Los Alamitos, CA, USA  
Publication Date: 1993 Country of Publication: USA xvi+471 pp.  
ISBN: 0 8186 3840 0  
U.S. Copyright Clearance Center Code: 1043-0989/93/\$03.00  
Conference Title: Proceedings of 9th IEEE Conference on Artificial  
Intelligence for Applications  
Conference Sponsor: IEEE Comput. Soc. Tech. Committee on Pattern Analysis  
& Mach. Intelligence; AAAI; Canadian Soc. Comput. Stud. Intelligence  
Conference Date: 1-5 March 1993 Conference Location: Orlando, FL, USA  
Language: English  
Abstract: The diagnostic methodology presented is motivated by an  
application related to offline diagnosis of a rocket engine. The  
**problem of diagnosing devices** offline with a fixed set of  
measurements is addressed. A diagnostic algorithm is presented which  
combines the advantages of model-based techniques based on constraint  
suspension and of search directed by heuristic expert knowledge. The  
algorithm enumerates all faults and **fault** combinations which are  
**possible** given a fixed set of measurement data in order of their  
likelihood. Expert knowledge is incorporated into a qualitative model-based  
framework in order to compensate for the lack of sufficient data. The  
resulting diagnoses are therefore uncertain but represent a best guess  
consistent with all available data.  
Subfile: C  
Copyright 1995, IEE

55/3,AB/6 (Item 6 from file: 2)  
DIALOG(R)File 2:INSPEC  
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04231283 INSPEC Abstract Number: B9210-8240-003, C9210-3340H-107  
Title: Technical diagnostics and control system for hydroelectric generators in small hydroelectric power plants  
Author(s): Danilevich, Ya.B.; Kalinina, G.I.  
Journal: Elektrichestvo no.2 p.49-52  
Publication Date: Feb. 1992 Country of Publication: Russia  
CODEN: ELEKA3 ISSN: 0013-5380  
Language: Russian  
Abstract: A two-level diagnostics and control scheme for hydroelectric generators is proposed. At the first (lower) level, control of preventive settings and storage of information is performed. For the thermal control at the lower level, the tasks include: data collection for primary processing of measured data; control of excesses of signals and maximally permitted temperatures and rates of heating; the signalling in the event of the controlled parameters falling outside the settings and, storage of data for the assessment of the remaining life of hydrogenerators. The functions of the second (upper) level of diagnostics are performed with the aid of a mobile **diagnostics** service, using **apparatus** for the inspection of the technical state of hydrogenerators and for **identification of possible defects**. A configuration of an automated diagnostics and control system for hydrogenerators is presented, and its operation and characteristics are discussed in some detail.  
Subfile: B C

55/3,AB/7 (Item 7 from file: 2)  
DIALOG(R)File 2:INSPEC  
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03719688 INSPEC Abstract Number: B90059689, C90055045  
Title: Multilayered cognitive processing  
Author(s): Hofmann, M.O.  
Author Affiliation: Dept. of Electr. & Comput. Eng., Alabama Univ.,  
Huntsville, AL, USA  
Conference Title: 1989 IEEE International Conference on Systems, Man and  
Cybernetics. Conference Proceeding. (Cat. No.89CH2809-2) p.1206-7 vol.3  
Publisher: IEEE, New York, NY, USA  
Publication Date: 1989 Country of Publication: USA 3 vol. 1300 pp.  
U.S. Copyright Clearance Center Code: CH2809-2/89/0000-1206\$01.00  
Conference Sponsor: IEEE  
Conference Date: 14-17 Nov. 1989 Conference Location: Cambridge, MA,  
USA

Language: English

Abstract: The complexity of large-scale systems can be controlled by  
imposing structure on the problem space. In the domain of **device**  
**diagnosis** the **problem** space consists of all **possible**  
**faults** and their manifestations which cannot be represented directly.  
A multitude of perspectives, such as physical structure, function, and  
behavior, need to be modeled to describe this space implicitly. The utility  
of a multilayered knowledge representation scheme for a relation-based  
knowledge base is demonstrated. The structure established by multiple  
layers and multiple perspectives facilitates classification of symptoms and  
focuses on the exploration of the solution space.

Subfile: B C

55/3,AB/8 (Item 8 from file: 2)

DIALOG(R)File 2:INSPEC

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03251517 INSPEC Abstract Number: B88076034, C88065928

Title: Microcomputer-based automobile engine analyzer

Author(s): Chan, F.H.Y.; Cheung, W.N.; Yeung, Y.P.

Author Affiliation: Dept. of Electr. & Electron. Eng., Hong Kong Univ.,  
Hong Kong

Journal: Microcomputer Applications vol.7, no.2 p.43-7

Publication Date: 1988 Country of Publication: USA

CODEN: MIAPEZ ISSN: 0820-0750

Language: English

Abstract: A microprocessor-based analyzer has been designed for the accurate measurement of automobile engine speed and dwell angle. The **device** also provides **diagnostic** information on **possible faults** in the ignition system.

Subfile: B C

55/3,AB/9 (Item 9 from file: 2)  
DIALOG(R)File 2:INSPEC  
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02441929 INSPEC Abstract Number: C85023954  
Title: Self-diagnosis in distributed systems  
Author(s): Holt, C.S.; Smith, J.E.  
Author Affiliation: Dept. of Electr. & Comput. Eng., Wisconsin Univ.,  
Madison, WI, USA  
Journal: IEEE Transactions on Computers vol.C-34, no.1 p.19-32  
Publication Date: Jan. 1985 Country of Publication: USA  
CODEN: ITCOB4 ISSN: 0018-9340  
U.S. Copyright Clearance Center Code: 0018-9340/85/0100-0019\$01.00  
Language: English  
Abstract: This paper deals with computer system diagnosis that is performed by a system itself, rather than by an outside mechanism. The **devices** performing the **diagnosis** and the **devices** communicating **diagnostic** information are included in the system model and may be **potentially faulty**. Purposes for performing **diagnosis** and diagnostic goals are discussed, and two **diagnosis problems** are singled out for more detailed study. First, the **problem** of '**diagnosis** for repair' is considered. A conventional diagnostic measure is used, and a relationship with earlier 'global observer' diagnostic algorithms is developed. The second **problem** studied is '**diagnosis** for graceful degradation'. A new diagnostic measure based on the number of surviving good units is defined and discussed, and an algorithm for diagnosis is given.  
Subfile: C

55/3,AB/10 (Item 1 from file: 8)  
DIALOG(R)File 8:Ei Compendex(R)  
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02985955

E.I. Monthly No: EIM9011-046498  
Title: Multi-layered cognitive processing.  
Author: Hofmann, Martin O.  
Corporate Source: Univ of Alabama, Dep of Electr & Comput Eng,  
Huntsville, AL, USA  
Conference Title: 1989 IEEE International Conference on Systems, Man, and  
Cybernetics. Part 3 (of 3)  
Conference Location: Cambridge, MA, USA Conference Date: 19891114  
E.I. Conference No.: 13445  
Source: Proceedings of the IEEE International Conference on Systems, Man  
and Cybernetics v 3. Publ by IEEE, IEEE Service Center, Piscataway, NJ,  
USA. Available from IEEE Service Cent (cat n 89CH2809-2), Piscataway, NJ,  
USA. p 1206-1207  
Publication Year: 1989  
CODEN: PICYE3 ISSN: 0884-3627  
Language: English

Abstract: The complexity of large-scale systems can be controlled by  
imposing structure on the problem space. In the domain of **device**  
**diagnosis** the **problem** space consists of all **possible**  
**faults** and their manifestations which cannot be represented directly.  
A multitude of perspectives, such as physical structure, function, and  
behavior, need to be modeled to implicitly describe this space. The utility  
of a multilayered knowledge representation scheme for a relation-based  
knowledge base is demonstrated. The structure established by multiple  
layers and multiple perspectives facilitates classification of symptoms and  
focuses on the exploration of the solution space. 14 Refs.

55/3,AB/11 (Item 1 from file: 34)  
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci  
(c) 2003 Inst for Sci Info. All rts. reserv.

10023251 Genuine Article#: 477RB Number of References: 20

Title: An efficient expert system for air compressor troubleshooting (ABSTRACT AVAILABLE)

Author(s): Liu SC (REPRINT) ; Liu SY

Corporate Source: Natl Pingtung Univ Sci & Technol, Dept Management Informat Syst, Pingtung 912//Taiwan/ (REPRINT); Natl Pingtung Univ Sci & Technol, Dept Management Informat Syst, Pingtung 912//Taiwan/; I Shou Univ, Dept Ind Engrg & Management, Kaohsiung 840//Taiwan/

Journal: EXPERT SYSTEMS, 2001, V18, N4 (SEP), P203-214

ISSN: 0266-4720 Publication date: 20010900

Publisher: BLACKWELL PUBL LTD, 108 COWLEY RD, OXFORD OX4 1JF, OXON, ENGLAND

Language: English Document Type: ARTICLE

Abstract: In this paper, an expert system for automobile air compressor troubleshooting (ACTS) is presented. This system can assist users to conduct an efficient and effective diagnosis on air compressor failures. Unlike most diagnosis expert systems, ACTS uses a new control strategy to enhance the efficiency of the diagnostic process. This control strategy attempts to spend the least amount of time to **detect** the compressor **fault** accurately by investigating only portions of the knowledge base. ACTS first constructs a diagnostic tree based on the functions or connectivity of the air compressor's devices. A fuzzy multiple-attribute decisionmaking method is used to determine the priority of the nodes (**devices**) in the **diagnostic** tree. The prioritized result creates a 'meta knowledge base' to control the diagnostic process. In addition, each node possesses its own knowledge base for hypothesizing the **possible faults** for the node. ACTS, written in MS Visual BASIC, has been successfully developed and implemented in MS-Windows environment on a PC. To validate the system performance, ACTS is compared to EXACT, an expert system for automobile air compressor troubleshooting, using 50 sample cases. The evaluation results indicate that ACTS performs better than EXACT by reducing the number of queries and the diagnosis time by 20.7% and 24.9%, respectively.

55/3,AB/12 (Item 1 from file: 94)  
DIALOG(R)File 94:JICST-EPlus  
(c)2003 Japan Science and Tech Corp(JST). All rts. reserv.

04171877 JICST ACCESSION NUMBER: 99A0738735 FILE SEGMENT: JICST-E  
Diagnostic Model of Air Conditioning System by Hierarchic Frame Network.  
Part 2-Verification of Practical Application by Stepwise Diagnosis as  
an Evaluation Item.

SHIBATA KATSUHIKO (1); TAKAHASHI ATSUSHI (1); SHIMIZU AKIHIRO (1)  
(1) Takasago Therm. Eng. Co., Ltd.

Kuki Chowa, Eisei Kogakkai Ronbunshu(Transactions of the Society of  
Heating, Air-Conditioning and Sanitary Engineers of Japan), 1999, NO.74  
, PAGE.23-35, FIG.9, TBL.5, REF.10

JOURNAL NUMBER: G0149BAB ISSN NO: 0385-275X

UNIVERSAL DECIMAL CLASSIFICATION: 628.81/.84+697 658.562.6.012.7-192

LANGUAGE: Japanese COUNTRY OF PUBLICATION: Japan

DOCUMENT TYPE: Journal

ARTICLE TYPE: Original paper

MEDIA TYPE: Printed Publication

ABSTRACT: The hierarchic frame network has been proposed as a new  
diagnostic model that can be applied to most of air conditioning  
systems. In the present study, stepwise diagnosis was used as an  
evaluation item, and the practicality and usability of the diagnostic  
model were verified in actual air conditioning systems. In the first  
**diagnostic** step, which detects **fault** symptoms, it was  
possible to perform **fault detection** without errors by  
considering the range of design specifications, safety device settings,  
and operating conditions with the setting of threshold values. In the  
second diagnostic step, which classifies the types of **fault**  
phenomena, it was **possible**, by adjusting the threshold which was  
based on statistical analysis of actual operating data and by setting a  
condition of high frequency for **fault detection**, to  
classify **fault** phenomena from which noise superimposed on the  
measurement signal had been removed. In the third **diagnostic**  
step, which performs **fault** localization, it was possible to  
**identify faulty** apparatus by inferring the fault phenomenon  
using knowledge of the frame network and rules. And in the fourth  
diagnostic step, it was possible to identify the cause of the fault by  
inferring the fault phenomenon using a fault tree for each  
**apparatus**. After confirming these **diagnosis** results in  
actual air conditioning systems and repairing the causes of  
**faults**, the **diagnosis** results returned to normal values,  
thus verifying that the **identification of faults** had been  
correctly carried out. The above verification process indicates the  
practicality and usability of a diagnostic model employing a hierarchic  
frame network. (author abst.)



55/3,AB/13 (Item 2 from file: 94)  
DIALOG(R)File 94:JICST-EPlus  
(c)2003 Japan Science and Tech Corp(JST). All rts. reserv.

03627361 JICST ACCESSION NUMBER: 98A0430254 FILE SEGMENT: JICST-E  
Diagnosis technique and maintenance of distribution substation.

KATANO OSAMU (1)

(1) Higashinihonmitsubishidenkipurantosabisu  
Denki Gakkai Ippan Sangyo Kenkyukai Shiryo, 1998, VOL.GID-98,NO.1-7,  
PAGE.35-39, FIG.1, TBL.3, REF.3

JOURNAL NUMBER: X0942AAK

UNIVERSAL DECIMAL CLASSIFICATION: 621.316.17

LANGUAGE: Japanese COUNTRY OF PUBLICATION: Japan

DOCUMENT TYPE: Conference Proceeding

ARTICLE TYPE: Original paper

MEDIA TYPE: Printed Publication

ABSTRACT: As to the power-incoming and distribution installation which is in the lapse of 20-25 years after the service started, the probability of occurrence of fault increases because of becoming too old to use, and the lowering of the reliability of electric power service is predicted. And, as a matter of fact that the renewal of the equipment can not be simply carried out, and therefore the effective maintenance works for preventing **possible** accidents and **faults** is desired. That is to say, the hot-line **diagnostic device** for the inspection on the power-incoming and distribution installation is high cost, and in many cases power interruption is carried out in the field diagnosis. It is, however, seldom that the user can execute planned power interruption, and great expectations are poured for the live-line diagnosis. This paper describes the degradation factors, diagnostic technique and maintenance of such a power-incoming and distribution installation which became too old for use.

55/3,AB/14 (Item 1 from file: 350)  
 DIALOG(R)File 350:Derwent WPIX  
 (c) 2003 Thomson Derwent. All rts. reserv.

013075739

WPI Acc No: 2000-247611/200022

XRPX Acc No: N00-185285

Control arrangement for IC engine has devices to control fuel pressure, detect fuel pressure, detect engine operating condition, determine air/fuel setpoint ratio, detect air/fuel ratio, etc

Patent Assignee: HITACHI LTD (HITA ); NISSAN MOTOR CO LTD (NSMO )

Inventor: GOTO K; HORI T; MATSUFUJI K; TOYOHARA M

Number of Countries: 003 Number of Patents: 003

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
DE 19941329	A1	20000302	DE 1041329	A	19990831	200022 B
JP 2000073828	A	20000307	JP 98246311	A	19980831	200023
US 6283108	B1	20010904	US 99386955	A	19990831	200154

Priority Applications (No Type Date): JP 98246311 A 19980831

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
DE 19941329	A1		34	F02D-041/22	
JP 2000073828	A		18	F02D-041/14	
US 6283108	B1			F02D-041/22	

Abstract (Basic): DE 19941329 A1

Abstract (Basic):

NOVELTY - A control arrangement for an IC engine contains: - a fuel supply system (4) for the engine with a device (12) to put under pressure the fuel, which is to be fed in and injected into the engine, the fuel pressure being one of the parameters for determining the fuel quantity; - a device to control the fuel pressure; - a device to detect the fuel pressure (14); - a device to detect an operating condition of the engine; - a device to determine an air/fuel setpoint ratio for the engine according to the detected operating condition of the engine; - a device (20) to detect an air/fuel ratio for the engine; and - a feedback control device for an air/fuel ratio to feed back a feedback control amount which is determined according to a deviation between the determined air/fuel setpoint ratio and the detected air/fuel ratio.

DETAILED DESCRIPTION - The control arrangement furthermore contains: - a **fault diagnosis device** to **diagnose a fault** in the fuel supply system according to the fuel pressure detected by the fuel pressure **detection** device; and - a **fault element detection** device to detect an element with a **possible fault** in the fuel supply system according to an amount which corresponds to an air/fuel ratio state including the detected air/fuel ratio and the feedback control amount of the air/fuel ratio, when the **fault diagnosis device** **diagnoses a fault** in the fuel supply system.

USE - For IC engine fuel control.

ADVANTAGE - **Faults** occurring are **detected** immediately and a **possible** element causing the **fault** is **identified**.

DESCRIPTION OF DRAWING(S) - The drawing shows a cross section of the engine control system

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fuel supply system (4)  
pressure sensor (14)  
air/fuel ratio sensor (20)  
pp; 34 DwgNo 1/26

55/3,AB/15 (Item 2 from file: 350)  
 DIALOG(R)File 350:Derwent WPIX  
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008923056

WPI Acc No: 1992-050325/199207

XRPX Acc No: N92-038483

**Fault diagnosis** arrangement for industrial machines - has  
 memory holding search tree corresp. to hardware orgnaisation of tested  
 equipment, fault probability table, and inference device

Patent Assignee: MITSUBISHI DENKI KK (MITQ )

Inventor: HORI S; OMORI T; SAKAGAMI M

Number of Countries: 003 Number of Patents: 005

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
DE 4124542	A	19920206	DE 4124542	A	19910724	199207 B
CA 2047439	A	19920125				199215
DE 4124542	C2	19951026	DE 4124542	A	19910724	199547
US 5587930	A	19961224	US 91739591	A	19910724	199706
CA 2047439	C	19990831	CA 2047439	A	19910722	200002

Priority Applications (No Type Date): JP 90198273 A 19900724

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
DE 4124542	A		9		
CA 2047439	C	E		G06F-011/00	
DE 4124542	C2		9	G01M-019/00	
US 5587930	A		9	G01B-007/00	

Abstract (Basic): DE 4124542 A

The **fault diagnosis** arrangement includes a detector  
 (5a,5b) of parameters of a tested equipment (6) and a memory (1,4)  
 contg. a search tree with nodes corresp. to sub-units of the tested  
 equipment and test tables (2) associated with each node. Each table  
 contains a description of at least one parameter to be detected and an  
 associated test condition.

A fault probability table contains fault probabilities and names  
 of daughter nodes corresp. to test condition results. A search  
 inference device locates the origin of a defect according to the search  
 tree and test tables.

ADVANTAGE - Conducts two or more tests simultaneously and locates  
 origin of fault from three or more origins. Diagnosis is performed  
 highly efficiently. (9pp Dwg.No.1/5)

Abstract (Equivalent): DE 4124542 C

A **fault diagnosing** system for determining the cause of  
 a fault, with a tested unit (6) and a detector system (5a,5b) which  
 detects the parameters of the tested unit. A storage unit with a main  
 and an auxiliary storage, in which the parameters are stored. A search  
 harness (1) including a computer is provided which has modules,  
 corresp. to the respective structural units of the tested unit. At  
 least one module has at least three subsidiary modules. The harness  
 modules are respectively allocated test tables (2), in which  
 respectively at least one parameter is given, to be detected by a  
 detector unit (5a, 5b), also at least one test condition related to  
 this parameter. A fault probability table with fault probabilities  
 according to the results of a test, corresp. to at least one test  
 condition. Also names of subsidiary modules, so that in at least one

module with at least three subsidiary modules allocated test tables, from which are given at least two parameters and test conditions to be detected. A search/interference unit (3), selects modules along the search harness and evaluates the associated test tables. The module selection is carried out, according to the result of the evaluation of the test tables.

ADVANTAGE - Carries out several tests in parallel. Three of more **potential faults** can be taken account of, without significant increase in cost.

Dwg.1/5

Abstract (Equivalent): US 5587930 A

A **fault diagnosis device** for determining a cause of fault of a device under test, comprising:

detector means for detecting parameters of a device under test; memory means;

a fault tree stored in said memory means and having nodes corresponding to respective sub-units of said device under test, whereby said fault tree has a tree structure corresponding to a hardware organization of said device under test;

test tables stored in said memory and associated with respective nodes of said fault tree, each test table including: a description of at least one parameter to be detected by said detector means; at least one test condition with respect to the parameter detected by said **detector** means; and a **fault** probability table representing fault probabilities and names of child nodes corresponding to respective results of said test condition; and

search/inference means for searching for and determining a cause of fault of said device under test in accordance with said fault tree and said test tables;

wherein at least one of said nodes has at least three child nodes and the test table associated with the node having at least three child nodes includes: a description of at least two parameters to be detected by said detector means; at least two test conditions with respect to the two parameters detected by said **detector** means; and a **fault** probability table representing fault probabilities and names of child nodes corresponding to respective patterns of results of said test conditions.

Dwg.1/5

06/04/2003

09/896,790

55/3,AB/16 (Item 3 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
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007601315

WPI Acc No: 1988-235247/198833

XRPX Acc No: N88-178901

**Diagnosis apparatus** for system maintenance - uses data base  
storing operating conditions corresp. to **possible faults** and  
compares with received operating

Patent Assignee: ANALYTICS INC (ANAL-N)

Inventor: KAPNIC E J; LEIBHOLZ S W

Number of Countries: 010 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 8805918	A	19880811	WO 88US336	A	19880205	198833 B

Priority Applications (No Type Date): US 8711530 A 19870206

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
WO 8805918	A	E	17		

Designated States (Regional): AT BE CH DE FR GB IT LU NL SE

Abstract (Basic): WO 8805918 A

The **fault diagnosis** of system includes a data base (24)  
which stores data indicating operating conditions of the system  
associated with **possible** causes of **possible faults**. A  
central processor (12) controls the apparatus (26), and receives  
operating condition data (20) from the system.

These data are compared (22) with the data stored in the data base,  
those causes of faults consistent with the received operating  
conditions selected (22), and appropriate procedural data provided, in  
audio (16) or visual (14) form, to the person using the apparatus.

USE/ADVANTAGE - Remote field=site locations. Can be used by  
unskilled personnel, and avoids unnecessary replacement of fault-free  
system parts.

1/3

55/3,AB/17 (Item 1 from file: 347)  
DIALOG(R)File 347:JAPIO  
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06947775

**FAULT DIAGNOSTIC DEVICE**

PUB. NO.: 2001-175327 [JP 2001175327 A]  
PUBLISHED: June 29, 2001 (20010629)  
INVENTOR(s): SHIBATA KENICHI  
YOSHIZUKA HIROSHI  
APPLICANT(s): YASKAWA ELECTRIC CORP  
APPL. NO.: 11-363838 [JP 99363838]  
FILED: December 22, 1999 (19991222)

**ABSTRACT**

PROBLEM TO BE SOLVED: To enable an operator to efficiently examine the cause of a generated fault.

SOLUTION: In this **fault diagnostic device** consisting of an engineering device 101 and a programmable controller 102 for controlling production equipment and executing the editing of **fault** rules and the **diagnosis**/analysis of **faults**, the causes of a generated fault is classified into a hypothesis expressing 'a **possible** cause of the **fault**' and internal events expressing 'an ambiguous cause depending upon some other examination results' and they are displayed on the screen of the engineering device 101. when ambiguity disappears, the hypothesis is formed, and when the ambiguity does not disappear, it is erased. Then the displayed hypothesis and internal events are rearranged and displayed in the descending order of certainty indicating 'the possibility of causes'.

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55/3,AB/18 (Item 2 from file: 347)  
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05466621

FAULT INFORMATION SAMPLING SYSTEM

PUB. NO.: 09-081421 [JP 9081421 A]  
PUBLISHED: March 28, 1997 (19970328)  
INVENTOR(s): SAITO YUKIHIRO  
APPLICANT(s): NEC ENG LTD [329822] (A Japanese Company or Corporation), JP  
(Japan)  
APPL. NO.: 07-239428 [JP 95239428]  
FILED: September 19, 1995 (19950919)

ABSTRACT

PROBLEM TO BE SOLVED: To provide a fault information sampling system which is capable of collecting fault information even when a fault is developed in a maintenance **diagnostic device** itself.

SOLUTION: When the fault information developed in a central processing unit 1 is **detected** in a **fault** information register 5, an interruption is made on a log sampling control part 4 via a shift register 6, an OR circuit 7 and an interruption register 8. At almost the same time as this interruption, the interruption is made on also a shift output control part 20 via an interruption register 21. Because the log sampling control part 4 makes the contents of the fault information register 5 be stored in a log information storage part 3 and the shift out control part 20 makes fault information be stored in a log information storage part 23 via the shift register 6, by these interruptions, the reading out of the other side becomes **possible** even if a **fault** is developed in either one of the storage parts 3 and 23.



55/3,AB/19 (Item 3 from file: 347)  
DIALOG(R)File 347:JAPIO  
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04225023

**FAULT DIAGNOSING DEVICE**

PUB. NO.: 05-216723 [JP 5216723 A]  
PUBLISHED: August 27, 1993 (19930827)  
INVENTOR(s): ABE TAKAHIRO  
NUNOKAWA KAZUYOSHI  
KAMIMURA MASAACKI  
APPLICANT(s): NISSAN MOTOR CO LTD [000399] (A Japanese Company or  
Corporation), JP (Japan)  
APPL. NO.: 04-047989 [JP 9247989]  
FILED: February 04, 1992 (19920204)  
JOURNAL: Section: P, Section No. 1655, Vol. 17, No. 662, Pg. 21,  
December 07, 1993 (19931207)

**ABSTRACT**

PURPOSE: To recognize the level of possibility as a cause of inconvenience for each part of a diagnostic target at a glance and to recognize the whole aspect of the target.

CONSTITUTION: Each part such as components A, B, and D and wiring before and behind them relating to inconvenient phenomenon in a diagnostic target circuit diagram graphic-displayed on a display is checked sequentially, and at each stage of diagnosis, the part confirmed as normal is displayed in blue, and every part is displayed in yellow (possible), orange (more **possible**), or red (**faulty**) corresponding to the degree of cause of inconvenience. Thereby, it is possible to easily narrow down a faulty part as confirming a normal part.

55/3,AB/20 (Item 4 from file: 347)  
DIALOG(R)File 347:JAPIO  
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04143018

METHOD AND DEVICE FOR GROUPING DIAGNOSTIC OBJECT FOR  
**FAULT DIAGNOSIS**

PUB. NO.: 05-134718 [JP 5134718 A]  
PUBLISHED: June 01, 1993 (19930601)  
INVENTOR(s): IRIE ATSUSHI  
NISHIDAI HAJIME  
ARAO MAKI  
ISHIGURO SUSUMU  
APPLICANT(s): OMRON CORP [000294] (A Japanese Company or Corporation), JP  
(Japan)  
APPL. NO.: 03-319754 [JP 91319754]  
FILED: November 08, 1991 (19911108)  
JOURNAL: Section: P, Section No. 1614, Vol. 17, No. 515, Pg. 62,  
September 16, 1993 (19930916)

ABSTRACT

PURPOSE: To automatically group output signals which are mutually independent and **fault diagnosis possible** from the view point of the ladder program of a programable logic controller(PLC).

CONSTITUTION: A monitoring object output coil is selected (step 101). The list of input/output contacts (adding an internal auxiliary contact) which are referred by the respective output coils in the ladder program is generated (step 104). A coupling degree between the two optional coils is calculated based on the presence or absence or the number of the input/output contacts which is commonly referred between the coils (step 106). The coupling degree calculation is processed as to all the selected output coils. The coupling degree is referred and, then, grouping is executed so that the mutually related output coils belong to the same group (step 107)

55/3,AB/21 (Item 5 from file: 347)  
DIALOG(R)File 347:JAPIO  
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03908237

MAINTENANCE DIAGNOSTIC SYSTEM

PUB. NO.: 04-273337 [JP 4273337 A]  
PUBLISHED: September 29, 1992 (19920929)  
INVENTOR(s): YAMAMASU KAZUHIRO  
APPLICANT(s): NEC CORP [000423] (A Japanese Company or Corporation), JP  
(Japan)  
APPL. NO.: 03-033786 [JP 9133786]  
FILED: February 28, 1991 (19910228) ✓  
JOURNAL: Section: P, Section No. 1483, Vol. 17, No. 62, Pg. 143,  
February 08, 1993 (19930208)

ABSTRACT

PURPOSE: To instantaneously inform a maintenance center of the information on the **fault** of a maintenance **diagnostic device** of the partner side by knowing the occurrence of the fault even if its own maintenance **diagnostic device** has a **fault**.

CONSTITUTION: The central arithmetic processors 8 and 9 are provided with the maintenance **diagnostic devices** 4 and 5 respectively. The devices 4 and 5 store the diagnostic results in the magnetic disks 10 and 11 and also inform a maintenance center 1 provided in common to both processors 8 and 9 of the **diagnostic** results. Then the **devices** 4 and 5 set the cross-call channels between the corresponding disks 10 and 11. Thus even the devices 4 and 5 of the partner side can read out the diagnostic results. In such a constitution, it is **possible** to know the **fault** of the maintenance **diagnostic device** of the partner side by means of an interface 12 set between both maintenance **diagnostic devices**.

55/3,AB/22 (Item 6 from file: 347)  
DIALOG(R)File 347:JAPIO  
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03899359

IMAGE FORMING DEVICE EQUIPPED WITH SELF-DIAGNOSTIC REPAIR  
SYSTEM

PUB. NO.: 04-264459 [JP 4264459 A]  
PUBLISHED: September 21, 1992 (19920921)  
INVENTOR(s): UMEDA YASUSHI  
MOGI YASUO  
TOMIYAMA TETSUO  
YOSHIKAWA HIROYUKI  
SHIMOMURA YOSHIKI  
APPLICANT(s): MITA IND CO LTD [000615] (A Japanese Company or Corporation),  
JP (Japan)  
APPL. NO.: 03-025801 [JP 9125801]  
FILED: February 20, 1991 (19910220)  
JOURNAL: Section: P, Section No. 1479, Vol. 17, No. 51, Pg. 63,  
February 02, 1993 (19930202)

## ABSTRACT

PURPOSE: To obtain the image formation device which is high in autonomy and saves labor for repairing operation by specifying the cause of a fault more accurately since the cause of the fault is specified while a fuzzy value is handled, and enabling effective self-repairing operation.

CONSTITUTION: A deterioration quantity in the form of a fuzzy qualitative value is found according to state data and deterioration data detected by sensors 1a, 1b, and 1c. A parameter value varying with the deterioration quantity is represented as a fuzzy qualitative value. The state data is represented as a fuzzy qualitative value and used to decide whether or not there is a fault. When the fault is decided, the parameter value varying with the deterioration quantity is used as an initial value to **diagnose** the **fault** and the **diagnostic** result is compared with the state data represented as the fuzzy qualitative value to identify the cause of the **fault**. The **identified** cause of the **fault** is used to decide whether or not the fault can be repaired and when the repair is **possible**, the **fault** is repaired by placing corresponding actuators 6a, 6b, and 6c in operation.

55/3,AB/23 (Item 7 from file: 347)  
DIALOG(R)File 347:JAPIO  
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02972549

**FAULT DETECTOR**

PUB. NO.: 01-270149 [JP 1270149 A]  
PUBLISHED: October 27, 1989 (19891027)  
INVENTOR(s): MATSUMOTO KOICHI  
APPLICANT(s): TOSHIBA CORP [000307] (A Japanese Company or Corporation), JP  
(Japan)  
APPL. NO.: 63-098303 [JP 8898303]  
FILED: April 22, 1988 (19880422)  
JOURNAL: Section: P, Section No. 994, Vol. 14, No. 35, Pg. 35, January  
23, 1990 (19900123)

**ABSTRACT**

PURPOSE: To surely catch a fault in a microprocessor and to perform the optimum **diagnosis** matching with a **device** which becomes a controlled object by constituting a watchdog timer of a one-shot circuit and a programmable timer circuit.

CONSTITUTION: The one-shot circuit 3 is used as the watchdog timer until the normal operation of the microprocessor 1 can be confirmed by the self-diagnosis of the microprocessor 1, and after it is confirmed, the one-shot circuit 3 is switched to the programmable timer circuit 5 settable the time of diagnosis by the microprocessor 1. In such a way, it is **possible** to catch the **fault** in the microprocessor 1 surely, and to set the optimum **diagnostic** time on the **device** which becomes the controlled object by the microprocessor 1.

55/3,AB/24 (Item 8 from file: 347)  
DIALOG(R)File 347:JAPIO  
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01845401

ELECTROHYDRAULIC TYPE SERVO MECHANISM

PUB. NO.: 61-059501 [JP 61059501 A]  
PUBLISHED: March 27, 1986 (19860327)  
INVENTOR(s): TOMINAGA NORIAKI  
IKEDA YOSHITAKA  
APPLICANT(s): MITSUBISHI HEAVY IND LTD [000620] (A Japanese Company or  
Corporation), JP (Japan)  
APPL. NO.: 59-181037 [JP 84181037]  
FILED: August 30, 1984 (19840830)  
JOURNAL: Section: P, Section No. 483, Vol. 10, No. 223, Pg. 133,  
August 05, 1986 (19860805)

ABSTRACT

PURPOSE: To improve the reliability and performance of maintenance of a control system and to attain repair and replacement of a faulty part without stopping a rotating machine in case of the partial fault of the control system by multiplexing the control system of a servo amplifier and a displacement detector.

CONSTITUTION: The system comprising the 1st servo amplifier 111 and the 1st potentiometer 191 and the system of the 2nd servo amplifier 112 and the 2nd potentiometer 192 constitute a multiplex servo system and its output is fed both to a **fault diagnostic device 33**. The **device 33**

supervises its output level of outputs C(sub 1), C(sub 2) of each system, fed to a changeover relay switch 31, and even if one of the multiplexed servo systems is faulty, the system is switched to the sound servo system. Thus, while rotating machines such as steam turbines are in operation, it is **possible** to replace a **faulty** servo amplifier in one servo system, the faulty part is repaired and replaced without stopping the operation and the reliability and performance of the maintenance of the control system are improved.

55/3,AB/25 (Item 9 from file: 347)  
DIALOG(R)File 347:JAPIO  
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01506923

**FAULT DIAGNOSING DEVICE FOR SEQUENCE MACHINE**

PUB. NO.: 59-218523 [JP 59218523 A]  
PUBLISHED: December 08, 1984 (19841208)  
INVENTOR(s): OGINO KOICHI  
ONODERA KATSUYUKI  
SUZUKI TOSHIHARU  
SUGIYAMA SADAKAZU  
SASAKI NAOKI  
APPLICANT(s): NISSAN MOTOR CO LTD [000399] (A Japanese Company or  
Corporation), JP (Japan)  
APPL. NO.: 58-092322 [JP 8392322]  
FILED: May 27, 1983 (19830527)  
JOURNAL: Section: P, Section No. 350, Vol. 09, No. 90, Pg. 100, April  
19, 1985 (19850419)

**ABSTRACT**

**PURPOSE:** To detect assuredly the presence or absence of a fault by storing all normal working states during a cycle of a sequence machine and comparing these working states with a memory every time the working state of the sequence machine varies.

**CONSTITUTION:** The working state of a sequence machine A is fetched to a fetching means B for each change of said working state. While a memory means C stores previously all normal working states during a cycle of the machine A. A comparing means D compares the data of the means C with that of the means B. When the coincidence is obtained from this comparison, it is decided that the machine A is normally working. While a fault is decided when no coincidence of comparison is obtained. Then a fault signal is delivered to **detect** early the **fault**. Thus it is **possible** to **detect** a **fault** early by a simple device and to recover the fault in a short time. This improves the working efficiency of a **fault diagnosing device**. Such a **device** is suitable used to a lift, conveyor, etc.

55/3,AB/26 (Item 10 from file: 347)  
DIALOG(R)File 347:JAPIO  
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01271410

**FAULT DIAGNOSING DEVICE OF CONTROLLER**

PUB. NO.: 58-208810 [JP 58208810 A]  
PUBLISHED: December 05, 1983 (19831205)  
INVENTOR(s): FUJIWARA TOSHIKATSU  
APPLICANT(s): MITSUBISHI HEAVY IND LTD [000620] (A Japanese Company or Corporation), JP (Japan)  
APPL. NO.: 57-092013 [JP 8292013]  
FILED: May 29, 1982 (19820529)  
JOURNAL: Section: P, Section No. 262, Vol. 08, No. 60, Pg. 19, March 22, 1984 (19840322)

**ABSTRACT**

**PURPOSE:** To improve the diagnosing capacity, by applying the input, output and integration output of a proportion and integration controller of a control system and then using a circuit having an OR function to discriminate a fault of a proportion gain from that of integration output with a **fault diagnosing device**.

**CONSTITUTION:** A control system detects 2 a control subject 1 and then performs an operation 7 with a switch 6 between automatic and manual operations after a proportion and integration (PI) control 5. The input 28 and output 29 of the PI controller 5 are fetched into a **fault diagnosing device** 11 together with the output 30 of an integrator. When the proportion gain of the controller 5 has a deviation to an internal model of the device 11, a difference is produced between the output of an operator 12 and that of the controller 5. Then a **fault** is **diagnosed** 13 and decided 20 and then displayed 21. When the proportion gain has no **fault**, a **fault** is **diagnosed** 19 and discriminated 20 from operations 16 and 18 of the input 28 and output 30. This fault is then displayed 21. As a result, the **fault diagnosing** capacity is improved. At the same time, it is **possible** to discriminate the **fault** of the proportion gain of the controller 5 from that of the integrator.



55/3,AB/27 (Item 11 from file: 347)  
DIALOG(R)File 347:JAPIO  
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00791177

**FAULT DIAGNOSTIC SYSTEM**

PUB. NO.: 56-111477 [JP 56111477 A]  
PUBLISHED: September 03, 1981 (19810903)  
INVENTOR(s): SUZAKI HARUO  
APPLICANT(s): NEC CORP [000423] (A Japanese Company or Corporation), JP  
(Japan)  
APPL. NO.: 55-014276 [JP 8014276]  
FILED: February 09, 1980 (19800209)  
JOURNAL: Section: P, Section No. 91, Vol. 05, No. 185, Pg. 2, November  
25, 1981 (19811125)

**ABSTRACT**

PURPOSE: To find a fault in a short time in a **fault diagnosis** of a sonar **device**, by automatically collecting and judging data from respective equipments by a bus-line system by using a computer.

CONSTITUTION: Testing device 20, while brought under the control of **fault diagnosing device** 10 with a computer program via but line 40, sends measurement data back to **diagnosing device** 10. Computer 50 sends digital signal 46 to receiver and latch circuit 56 via driver circuit 52. Next, set pulse 44 is sent to place test setting circuit 1 in a test state. When the data of circuit 2 to be tested is a digital signal, it is sent to driver circuit 57 via measuring circuit 3 and for data collection, computer 50 obtains the data by receiving them from driver circuit 57 by receiver circuit 53. This operation is repeated for N channels. This data is compares with a rated value in the computer for a diagnosis. This constitution makes it **possible** to find a **fault** in a short time.  
? DS

04jun03 09:49:38 User267149 Session D745.1

SYSTEM:OS - DIALOG OneSearch

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*author  
search*

Set	Items	Description
S1	21	AU=(HOFRICHTER, K? OR HOFRICHTER K?)
S2	5	AU=(GAUBA, R? OR GAUBA R?)
S3	0	AU=(GAXIOLA, D? OR GAXIOLA D?)
S4	786	AU=(OUYANG, J? OR OUYANG J?)
S5	0	S1 AND S2
S6	0	S1 AND S4
S7	0	(S1 OR S2 OR S4) AND DIAGNOS????????(3N) (DEVICE OR APPARAT- ????????)
S8	0	(S1 OR S2 OR S4) AND (DIAGNOS???????? OR DISTINGUISH???? OR IDENTIF???? OR GATEWAY OR GATE()WAY) (3N) (DEVICE? ? OR APPAR- AT????????)
S9	0	(S1 OR S2 OR S4) AND (CONSUMER? ? OR USER? ?) (3N)ELECTRONI- C? ?
S10	0	(S1 OR S2 OR S4) AND (CEBUS? OR CEBUS?(3N)NETWORK? ?)
S11	0	(S1 OR S2 OR S4) AND DIAGNOS????????(3N) (PROCEDURE OR CONT- ROL????????)
S12	1	(S1 OR S2 OR S4) AND (FAULT?????? OR DEFECT?????? OR IMPERF- ECT????????) (3N) (ELECTRONIC? ? OR DEVICE? ? OR APPARAT?????)
S13	0	(S1 OR S2 OR S4) AND (POTENTIAL???????? OR POSSIBLE) (3N) (F- AULT?????? OR DEFECT?????? OR IMPERFECT????????)

04jun03 09:18:58 User267149 Session D744.1

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Set	Items	Description
S1	2634	CEBUS?
S2	20	CE()BUS?
S3	142	S1 AND CONSUMER
S4	133	S3 AND ELECTRONIC?
S5	4	S4 AND DIAGNOS?

06/04/2003

09/896,790

5/3,AB/1 (Item 1 from file: 8)  
DIALOG(R)File 8: Ei Compendex(R)  
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04469769

E.I. No: EIP96083276847  
Title: **CEBus** network access via the World-Wide-Web  
Author: Corcoran, Peter M.; Desbonnet, Joe; Lusted, Karl  
Corporate Source: University Coll  
Conference Title: Proceedings of the 1996 IEEE International Conference  
on Consumer Electronics  
Conference Location: Rosemont, IL, USA Conference Date:  
19960605-19960607

E.I. Conference No.: 45105  
Source: Digest of Technical Papers - IEEE International Conference on  
Consumer Electronics 1996. IEEE, Piscataway, NJ, USA, 96CH35869. p 236-237  
Publication Year: 1996  
CODEN: DTPEEL ISSN: 0747-668X  
Language: English

Abstract: Several methods of providing access to **CEBus** networks  
using the World Wide Web are described. Details of a working demonstration  
system are given. The system software incorporates CGI-Bin scripts and Java  
applets to support remote access to **CEBus** networks. To illustrate the  
potential of this technology an application to allow remote  
trouble-shooting and fault diagnosis on a CEBus network is  
described. (Author abstract) 5 Refs.

5/3,AB/2 (Item 2 from file: 8)  
DIALOG(R)File 8:Ei Compendex(R)  
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04280554

E.I. No: EIP95112913053

Title: Active-node fault **diagnosis** system for **CEBus** networks

Author: Lusted, Karl; Humborg, Kenn; Nolan, Paul J.; Corcoran, Peter M.

Corporate Source: Univ Coll, Galway, UK

Source: IEEE Transactions on Consumer Electronics v 41 n 3 Aug 1995. p

884-889

Publication Year: 1995

CODEN: ITCEDA ISSN: 0098-3063

Language: English

Abstract: The design and implementation of an active-node fault **diagnosis** system for **CEBus** networks is described. The system uses an IBM PC with a user-friendly GUI to provide statistical information on network traffic and messages. The PC is linked to an active **CEBus** node which monitors the network and can initiate testing sequences controlled by the PC. (Author abstract) 8 Refs.

06/04/2003

09/896,790

5/3,AB/3 (Item 3 from file: 8)  
DIALOG(R)File 8:Ei Compendex(R)  
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04242386

E.I. No: EIP95092844474

Title: Active-node fault **diagnosis** system for **CEBus** networks

Author: Lusted, Karl; Humborg, Kenn; Nolan, Paul J.; Corcoran, Peter M.

Corporate Source: Univ Coll

Conference Title: Proceedings of the 1995 IEEE International Conference  
on Consumer Electronics

Conference Location: Rosemont, IL, USA Conference Date:  
19950607-19950609

E.I. Conference No.: 43508

Source: Digest of Technical Papers - IEEE International Conference on  
Consumer Electronics 1995. IEEE, Piscataway, NJ, USA, 95CH3571-9. p 402-403

Publication Year: 1995

CODEN: DTPEEL ISSN: 0747-668X

Language: English

Abstract: The design and implementation of an active-node fault  
**diagnosis** system for **CEBus** networks is described. The system  
uses an IBM PC with a user-friendly GUI to provide statistical information  
on network traffic and messages. The PC is linked to an active **CEBus**  
node which monitors the network and can initiate testing sequences  
controlled by the PC. (Author abstract) 7 Refs.

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5/3,AB/4 (Item 1 from file: 65)  
DIALOG(R)File 65:Inside Conferences  
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01070973 INSIDE CONFERENCE ITEM ID: CN010484388  
An Active-Mode Fault **Diagnosis** System for **CEBus**[R] Networks  
Lusted, K.; Humborg, K.; Nolan, P. J.; Corcoran, P. M.  
CONFERENCE: Consumer electronics-14th International conference  
IEEE INTERNATIONAL CONFERENCE ON CONSUMER ELECTRONICS, 1995; 14th P:  
402-403  
IEEE, 1995  
ISSN: 0747-668X ISBN: 0780321413; 0780321045; 0780321421  
LANGUAGE: English DOCUMENT TYPE: Conference Papers and programme  
CONFERENCE SPONSOR: IEEE  
CONFERENCE DATE: Jun 1995 (199506) (199506)  
NOTE:  
Also known as ICCE

06/04/2003

09/896,790

04jun03 10:58:26 User267149 Session D747.1

SYSTEM:OS - DIALOG OneSearch

File 348:EUROPEAN PATENTS 1978-2003/May W04

(c) 2003 European Patent Office

File 349:PCT FULLTEXT 1979-2002/UB=20030529,UT=20030522

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Set	Items	Description
S1	2701	DIAGNOS????????(3N)(DEVICE? ? OR APPARAT????????)/TI,AB,CM
S2	2250	(CONSUMER? ? OR USER? ?)(3N)ELECTRONIC? ?/TI,AB,CM
S3	34	(CEBUS? OR CEBUS?(3N)NETWORK? ?)/TI,AB,CM
S4	1408	DIAGNOS????????(3N)(PROCEDURE OR CONTROL????????)/TI,AB,CM
S5	104	DIAGNOS????????(3N)(LOCAL?????? OR HOME)/TI,AB,CM
S6	1345	(HOME(3N)NETWORK? ? OR USER? ?(2N)(OWNED OR OWN))/TI,AB,CM
S7	7	(ELIMINAT????????(3N)(SHIP OR SHIPMENT? ? OR SHIPPING))/TI,A- B,CM
S8	2836	S4:S7
S9	2641	((FAULT??????? OR DEFECT?????? OR IMPERFECT????????)(3N)(ELEC- TRONIC? ? OR DEVICE? ? OR APPARAT?????))/TI,AB,CM
S10	6256	((DIAGNOS???????? OR IDENTIF???????? OR DETECT???????? OR S- ENS????????)(3N)(FAULT??????? OR DEFECT?????? OR IMPERFECT?????- ?? OR PROBLEM? ?))/TI,AB,CM
S11	7620	S9:S10
S12	14	S1 AND S2
S13	0	S12 AND S3
S14	6	S12 AND S8
S15	6	IDPAT (sorted in duplicate/non-duplicate order)
S16	6	IDPAT (primary/non-duplicate records only)
S17	8	S12 NOT S15
S18	1	S17 AND S11
S19	7	S17 NOT S18
S20	7	IDPAT (sorted in duplicate/non-duplicate order)
S21	179	S11 AND S1
S22	41	S21 AND S8
S23	0	S22 AND S3
S24	39	S22 NOT S12
S25	0	S24 AND S2

16/TI,PN,PD,PY,K/2 (Item 2 from file: 349)  
DIALOG(R)File 349:(c) 2003 WIPO/Univentio. All rts. reserv.

USING LOCAL DEVICES AS DIAGNOSTIC TOOLS FOR  
CONSUMER ELECTRONIC DEVICES  
UTILISATION DE DISPOSITIFS LOCAUX COMME OUTILS DE DIAGNOSTIC POUR APPAREILS  
ELECTRONIQUES GRAND PUBLIC  
Patent and Priority Information (Country, Number, Date):  
Patent: WO 200303168 A2-A3 20030109 (WO 0303168)  
Publication Year: 2003

#### English Abstract

When a problem with a **consumer electronic device (108)** owned by a **user** is identified, a **diagnostic procedure (110)** is provided to **control the diagnosis** of the potentially faulty **consumer electronic device (108)** by a testing **consumer electronic device (106)**. The testing **consumer electronic device (106)** is a local device owned by the **user** that can diagnose problems associated with the potentially faulty **consumer electronic device (108)**. The testing **consumer electronic device (106)** and the potentially faulty **consumer electronic device (108)** are part of a **home network (34)**.

#### Claim

1. A method for **diagnosing consumer electronic devices**, the method comprising: receiving information indicative of a problem with one or more potentially faulty **consumer electronic devices**; and providing a **diagnostic procedure to control diagnosis** of the one or more potentially faulty **consumer electronic devices** by at least one testing **consumer electronic device** capable of **diagnosing** the one or more potentially faulty **consumer electronic devices**.

2 The method of claim 1 wherein the at least one testing **consumer electronic device** is coupled to the one or more potentially faulty **consumer electronic devices** via a **home network**.

3 The method of claim 1 wherein the **diagnostic procedure** instructs a user to connect the at least one testing **consumer electronic device** to the one or more potentially faulty **consumer electronic devices** specifically for the **diagnosis**.

4 The method of claim 1 further comprising: providing a user interface for performing the **diagnostic procedure**.

5 The method of claim 1 further comprising: directing a **user** to a **consumer electronic device** that is designated to provide a user interface for performing the **diagnostic procedure**.

6 The method of claim 1 further comprising: receiving the **diagnostic procedure** over a public network.

7 The method of claim 1 further comprising:  
receiving the **diagnostic procedure** from a **home network device**.

8 The method of claim 6 further comprising:  
downloading the **diagnostic procedure** to a **diagnostic procedure host device**.

9 The method of claim 8 wherein the **diagnostic procedure host device** is a component of the testing **consumer electronic device**.

10 The method of claim 2 further comprising:  
providing direct communication between a user and a human test technician using connection of the **home network** to a public network.

11 A method for **diagnosing consumer electronic devices**, the method comprising: collecting data concerning functionality of a potentially faulty **consumer electronic device** using a testing **consumer electronic device** capable of **diagnosing** the potentially faulty **consumer electronic device**; utilizing the collected data to identify a problem with the potentially faulty **consumer electronic device**; and when the problem is identified, notifying the user about the problem.

12 The method of claim 11 wherein the testing **consumer electronic device** communicates with the potentially faulty **consumer electronic device** using a **home network**.

13 The method of claim 12 wherein collecting data further comprises:  
instructing the testing **consumer electronic device** to remotely control a certain operation of the potentially faulty **consumer electronic device** and to capture data resulting from the certain operation; and receiving the resulting data from the testing **consumer electronic device**.

19 The method of claim 12 wherein collecting data further comprises:  
providing direct communication between a user and a test technician via an operational interface of any one of the testing **consumer electronic device** and the potentially faulty **consumer electronic device** using connection of the **home network** to a public network.

20 The method of claim 12 wherein collecting data further comprises:  
comparing a current operation of the potentially faulty **consumer electronic device** with a prior operation of the potentially faulty **consumer electronic device** that was recorded before the problem arose.

23 An **apparatus for diagnosing consumer electronic devices**, the apparatus comprising:  
means for receiving information indicative of a problem with one or more potentially faulty **consumer electronic devices**; and  
means for providing a **diagnostic procedure** to control **diagnosis** of the one or more potentially faulty **consumer electronic devices** by at least one testing **consumer**

06/04/2003

09/896,790

16/TI,PN,PD,PY,K/1 (Item 1 from file: 348)  
DIALOG(R)File 348:(c) 2003 European Patent Office. All rts. reserv.

USING LOCAL DEVICES AS DIAGNOSTIC TOOLS FOR  
CONSUMER ELECTRONIC DEVICES  
UTILISATION DE DISPOSITIFS LOCAUX COMME OUTILS DE DIAGNOSTIC POUR APPAREILS  
ELECTRONIQUES GRAND PUBLIC  
PATENT (CC, No, Kind, Date): WO 2003003168 030109

16/TI,PN,PD,PY,K/3 (Item 3 from file: 349)  
DIALOG(R)File 349:(c) 2003 WIPO/Univentio. All rts. reserv.

REMOTE MANUAL, MAINTENANCE, AND DIAGNOSTIC SERVICES FOR NETWORKED  
ELECTRONIC DEVICES  
SERVICES DE MAINTENANCE ET DE DIAGNOSTIC MANUELS A DISTANCE POUR  
DISPOSITIFS ELECTRONIQUES EN RESEAU

Patent and Priority Information (Country, Number, Date):

Patent: WO 200237299 A1 20020510 (WO 0237299)

Publication Year: 2002

#### English Abstract

A process is provided for identifying and managing support service applications associated with **consumer electronic** devices. The process is executed by a gateway device (14) communicatively coupled with each of the electronic devices via a **home network** (34), the gateway device (14) being operative to access the Internet (18) and being communicatively coupled with a display unit (42). The process includes the...

...support service process for the selected device. The support service may include a remote interactive manual service providing educational instructions to a user of the **home network** system regarding operation of a selected device (306), a remote interactive maintenance/diagnostic service for instructing a **home network** system user in solving maintenance-problems-associated with a selected device, or a combination remote interactive manual/maintenance/diagnostic service.

#### Claim

##### CLAIMS

I 1. A process of identifying and managing support service applications associated with **consumer electronic** devices, the process for execution by a gateway device (14) communicatively coupled with each of the electronic devices (30) via a **home network** (34), the gateway device being operative to access the Internet (I 8) and being communicatively coupled with a display unit (42), comprising the steps of determining...

16/TI,PN,PD,PY,K/4 (Item 4 from file: 349)  
DIALOG(R)File 349:(c) 2003 WIPO/Univentio. All rts. reserv.

METHOD AND SYSTEM FOR TESTING AND/OR **DIAGNOSING** CIRCUITS USING TEST  
**CONTROLLER ACCESS DATA**  
PROCEDE ET SYSTEME PERMETTANT DE **CONTROLLER** ET/OU DE  
**DIAGNOSTIQUER** DES CIRCUITS AU MOYEN DE DONNEES D'ACCES D'UNITE DE  
COMMANDE DE CONTROLE

Patent and Priority Information (Country, Number, Date):

Patent: WO 200227340 A2-A3 20020404 (WO 0227340)  
Publication Year: 2002

#### Claim

... to said circuit, said system  
comprising:  
means for generating a test program including:  
means for reading an embedded test controller access data file, a test  
**controller diagnosis** data file containing signatures and  
vector  
data for use in diagnosing test failures down to a failing  
module, and a test configuration data file defining...

...of said controllers or test step and, when executed,  
appropriate predetermined vectors for a selected test group are  
executed without any functional vectors;  
means for **diagnosing device** failures.

6 A system as defined in claim 2, each said test step defining to the  
full execution of one or more test controllers in...patterns for testing  
embedded test  
blocks in said electronic circuit, said system comprising:  
means for reading a embedded test block access data file of said  
**electronic** circuit; means responsiveto **user** input for  
selecting one or more embedded test blocks in said circuit under test,  
specifying a mode of operation of each of one or more...



16/TI,PN,PD,PY,K/5 (Item 5 from file: 349)  
DIALOG(R)File 349:(c) 2003 WIPO/Univentio. All rts. reserv.

SYSTEM, DEVICE AND METHOD FOR MONITORING A PLURALITY OF ELECTRIC USERS,  
PARTICULARLY HOUSEHOLD APPLIANCES  
SYSTEME, DISPOSITIF ET PROCEDE DE SUIVI D'UNE PLURALITE D'USTENSILES  
ELECTRIQUES, NOTAMMENT D'APPAREILS ELECTROMENAGERS  
Patent and Priority Information (Country, Number, Date):  
Patent: WO 9943068 A1 19990826  
Publication Year: 1999

#### Claim

... information (such as in view of an energy savin'g or stored in  
suitable memory means as part of the above statistical and/or  
consciousness  
**diagnostic** information. Moreover, the **control** system of each  
household appliance C is programmed accordingly to  
In  
known techniques to periodically store at least the diagnostic and the  
functional information in...agreement entered with the utilizer. Such a  
customer service activity is based on the diagnostic data sent by the  
utilizer to the center through the **device F** (as said,  
**diagnostic** data are generated by the household appliances C, stored  
in their memory means, transferred periodically to the memory means ME of  
the device F and...programmed to perform a 1 5 data transfer at periodic  
terms (such as for example once a day), either spontaneously or upon  
request from the **device F**. **Diagnostic** information stored in  
the memory means NUE are then transferred, by means of the telephone G or  
T, through the microcontroller MP to the service...device F is not  
necessarily limited to the instance of a modular kitchen, but can also be  
provided for all household appliances connected to the **network R** of  
a **home** environment, provided they conform to EP-A-0 727 668. The  
features of the present invention are clear from the above description.  
In particular, a...of electric users (C), in particular household  
appliances belonging to a same household environment and connected to a  
network (R), where each of said electric **users** (C) comprises an  
**electronic** control system with interface means to said network (R),  
and each electronic control system is programmed to make available on  
said network ( R ) information relating...

16/TI,PN,PD,PY,K/6 (Item 6 from file: 349)  
DIALOG(R)File 349:(c) 2003 WIPO/Univentio. All rts. reserv.

MOBILE TELECOMMUNICATION DEVICE FOR SIMULTANEOUSLY TRANSMITTING AND  
RECEIVING SOUND AND IMAGE DATA

APPAREIL DE TELECOMMUNICATION MOBILE PERMETTANT D'EMETTRE ET DE RECEVOIR  
SIMULTANEMENT DES DONNEES SON ET IMAGE

Patent and Priority Information (Country, Number, Date):

Patent: WO 9901859 A1 19990114

Publication Year: 1999

#### Claim

... the invention provides a mobile telecommunication unit that sends audio and image information simultaneously and eliminates the cost and delay of shipping images and other **diagnostic** information. The **device** is portable, supports a variety of modes of telecommunication (e.g., POTS, cellular, ISDR T-1, or satellite), and can send voice data and possibly ...emergency room doctor, and start treatment on the way to the hospital, saving the most valuable time in trauma treatment. A doctor on call could **diagnose** the patient from **home**, possibly saving unnecessary trips to the emergency room. Alternatively, the doctor could instruct the operating room personnel on special needs for a special procedure, saving ...back of the display from the display. Finally, a secure plate is used to mount the electrical components to the back of the display. The **user** interface and other **electronic** components in the unit 20 are implemented in an integrated mounting structure that includes a display assembly 140 and a series of stacked boards mounted...

18/TI,PN,PD,PY,K/1 (Item 1 from file: 349)  
DIALOG(R)File 349:(c) 2003 WIPO/Univentio. All rts. reserv.

REMOTE **DIAGNOSIS** AND CENTRAL **FAULT** EVALUATION METHOD OF  
DECENTRALIZED ELECTRIC DEVICES, AND DECENTRALIZED ELECTRONIC DEVICE  
PROCEDE DE TELEDIAGNOSTIC ET D'EVALUATION D'ERREURS CENTRALISEE CONCERNANT  
DES APPAREILS ELECTRIQUES DECENTRALISES, ET APPAREIL ELECTRONIQUE  
DECENTRALISE  
VERFAHREN ZUR FERNDIAGNOSE UND ZENTRALEN FEHLERAUSWERTUNG VON DEZENTRALEN  
ELEKTRISCHEN GERATEN UND DEZENTRALES ELEKTRONISCHES GERAT HIERZU  
Patent and Priority Information (Country, Number, Date):  
Patent: WO 200213560 A1 20020214 (WO 0213560)  
Publication Year: 2002

English Abstract

The invention relates to a remote **diagnosis** and central **fault** evaluation method of decentralized electronic devices (1) comprising an integrated telecommunications device (3). The inventive method comprises the following steps: a) storing information about malfunctions of a decentralized electronic **device** (1) in a **diagnostic** memory (6) of the electronic device (1); b) setting up a telecommunications link between the electronic device (1) and a central fault evaluation station (7), operated by the **user** of the **electronic device** (1); c) transmitting **fault** data from the **diagnostic** memory (6) to the central fault evaluation station (7); and d) evaluating the fault data in the central fault evaluation station (7).

20/TI,PN,PD,PY,K/1 (Item 1 from file: 348)  
DIALOG(R)File 348:(c) 2003 European Patent Office. All rts. reserv.

Diagnostics, protection and isolation system for electronic devices on a  
vehicle data communication bus

Diagnose-, Schutz- und Isolierungssystem fur ein Datenubertragungsbussystem  
eines Kraftfahrzeugs

Dispositif de diagnostic, d'isolation et de protection pour un bus de  
communication de donnees pour un vehicule automobile

PATENT (CC, No, Kind, Date): EP 1186477 A2 020313 (Basic)

...ABSTRACT A2

A system for use in programming and **diagnostics** of electronic  
**devices** (32) in a vehicle includes a connector jack (36) having a  
plurality of electrical connection sites configured for electrical  
connection to the electronic devices (32...

...may be set in an open state to electrically disconnect an electronic  
device (32) from the data communication bus. Methods for use in  
programming and **diagnostics** of electronic **devices** (32) in a  
vehicle include selectively setting one or more of the switching units  
(56) in an open state to electrically disconnect electronic devices from  
...

...CLAIMS A2

1. A system for use in programming and **diagnostics** of electronic  
**devices** in a vehicle that communicate via a data communication  
bus in the vehicle, the system comprising:
  - (a) a connector jack having a plurality of electrical...bus by  
disengaging the electronics module from the connector jack and  
engaging the shorting plug with the connector jack.
23. A method for use in **diagnostics** of electronic **devices** in  
a vehicle that communicate via a data communication bus in the  
vehicle, the method comprising:
  - (a) connecting the electronic devices in the vehicle to...

...30, further comprising a user input in communication with the processing  
unit, wherein the instructions carried out by the processing unit are  
received from the **user** input.

34. The **electronics** module of Claim 29, wherein the processing unit  
is configured to monitor data communicated on the data communication  
bus and selectively set one or more...

20/TI,PN,PD,PY,K/2 (Item 2 from file: 349)  
DIALOG(R)File 349:(c) 2003 WIPO/Univentio. All rts. reserv.

SYSTEM AND METHOD FOR RAPIDLY CUSTOMIZING DESIGN, MANUFACTURE AND/OR  
SELECTION OF BIOMEDICAL DEVICES

SYSTEME ET PROCEDE POUR PERSONNALISER RAPIDEMENT LA CONCEPTION, LA  
FABRICATION ET/OU LA SELECTION DE DISPOSITIFS BIOMEDICAUX

Patent and Priority Information (Country, Number, Date):

Patent: WO 200330787 A1 20030417 (WO 0330787)

Publication Year: 2003

Claim

... not limited to."

5

The present invention is directed to the preparation of rapid-prototyped biomedical devices manufactured or selected using a patient's own **diagnostic** data. The biomedical **devices** may take the form of structural implants, drug delivery implants and/or oral dosages. The diagnostic data may take the form of radiological data, such...art will appreciate that the invention can be practiced with other computer system configurations, including hand-held devices, multiprocessor systems,

6

microprocessor-based or programmable **consumer electronics**, personal computers ("PCs"), network PCs, mini computers, mainframe computers, and the like. The invention can be practiced in

20/TI,PN,PD,PY,K/3 (Item 3 from file: 349)  
DIALOG(R)File 349:(c) 2003 WIPO/Univentio. All rts. reserv.

MEDICAL APPARATUS REMOTE CONTROL AND METHOD  
COMMANDE A DISTANCE D'APPAREIL MEDICAU ET PROCEDE CORRESPONDANT  
Patent and Priority Information (Country, Number, Date):  
Patent: WO 200249509 A2-A3 20020627 (WO 0249509)  
Publication Year: 2002

Claim

... one of an external infusion pump, an implanted infusion pump, a pacemaker, a cardiac defibrillator, a neurostimulator, an x-ray machine, an EKG machine, a **diagnostic device**, a glucometer, a blood analyzer, an electrocautery device, an operating room table, a monitor, and a laparoscopic controller.

17 A system according to Claim 1...a cellular phone, a personal digital assistant, and an electronic game.

34 A system according to Claim 1, wherein the remote control device further includes **electronic** memory storing a **user** manual for the medical treatment apparatus.

35 A system according to Claim 1, wherein the wireless communication between the remote control device and the medical...

...comprises one of an external infusion pump, an implanted infusion pump, a pacemaker, a cardiac defibrillator, a neurostimulator, an x-ray machine, an EKG machine, a **diagnostic device**, a glucometer, a blood analyzer, an electrocautery device, an operating room table, a monitor, and a laparoscopic controller.

66 A system according to Claim 36, wherein the remote control device further includes **electronic** memory storing a **user** manual for the medical treatment apparatus.

67 A system according to Claim 36, wherein the wireless communication between the remote control device and the medical...

...one of an external infusion pump, an implanted infusion pump, a pacemaker, a cardiac defibrillator, a neurostimulator, an x-ray machine, an EKG machine, a **diagnostic device**, a glucometer, a blood analyzer, an electrocautery device, an operating room table, a monitor, and a laparoscopic controller.

20/TI,PN,PD,PY,K/4 (Item 4 from file: 349)  
DIALOG(R)File 349:(c) 2003 WIPO/Univentio. All rts. reserv.

**INTERVENTIVE-DIAGNOSTIC DEVICE**

DISPOSITIF DE DIAGNOSTIC PAR INTERVENTION

Patent and Priority Information (Country, Number, Date):

Patent: WO 200102049 A2-A3 20010111 (WO 0102049)  
Publication Year: 2001

**Claim**

... according to claim 61, wherein the stimulation unit comprises an industry-standard computer.

74 Apparatus for inducing a modification of a physiological variable of a **user**, comprising:  
0 an **electronic** game adapted to be played by the user, so as to apply an intervention to the user responsive to a game parameter;  
a sensor, adapted...

20/TI,PN,PD,PY,K/5 (Item 5 from file: 349)  
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## UNIVERSAL POWER SUPPLY

SYSTEME D'ALIMENTATION POLYVALENT

Patent and Priority Information (Country, Number, Date):

Patent: WO 9926330 A2 19990527

Publication Year: 1999

## Claim

... charging to discontinue.

367. The method set forth in claim 344, wherein supplementing the first look-up table with a software utility in the electrical **device** includes a **diagnosticstyle** software utility that is capable of turning hardware devices like a hard drive. floppy disk drive, CD-ROM drive. etc.. ON and OFF.

368. The...a power supply without any prior information about the power requirements of the electrical device, and without any particular skills on the part of the **user** of said **electronic** device.

434. The computer-readable medium as set forth in claim 433, wherein the detecting includes using the analog-to-digital converter to sense and

...



20/TI,PN,PD,PY,K/6 (Item 6 from file: 349)  
DIALOG(R)File 349:(c) 2003 WIPO/Univentio. All rts. reserv.

DRY POWDER INHALER HAVING ELECTRONIC SENSING AND SIGNALLING  
INHALATEUR A POUDRE SECHE POSSEDANT UN DISPOSITIF ELECTRONIQUE DE DETECTION  
ET DE SIGNALISATION

Patent and Priority Information (Country, Number, Date):

Patent: WO 9507724 A1 19950323

Publication Year: 1995

#### Claim

... when

microprocessor 405 toggles output line 764. Current limiting resistor 770 functions to complete LED indicator 765 circuit. Illumination 766 serves as feedback to the **user** of the **electronic** inhalant apparatus 100 when optional display/alarm device 790 is not present. It is understood that a tone generator could be substituted for an audible...935 is manipulated in conventional manner to program apparatus 100 for scheduling if required by doctor. Retrieved information 925 and 930 also could represent a **diagnostic** report of the **apparatus** 100 over the full recorded period of time which includes battery and sensor response. This information, under analysis, indicates if the instrument was functioning...

...to satisfy the need.

In operation, the present invention apparatus 100, being miniaturized, portable and having a familiar shape as is in Figure 2e, to **users** as a non **electronic** medication inhaler dispensers (Figure 2a), the user would install a conventional medication dry powder dispenser

20/TI,PN,PD,PY,K/7 (Item 7 from file: 349)  
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INHALER HAVING AN ATTACHABLE DOSING MONITOR AND RECORDER  
INHALATEUR A ELEMENT D'ENREGISTREMENT ET DE SURVEILLANCE DE DOSAGE  
ADAPTABLE

Patent and Priority Information (Country, Number, Date):

Patent: WO 9507723 A1 19950323

Publication Year: 1995

#### Claim

... when

microprocessor 605 toggles output line 864. Current limiting resistor 870 functions to complete LED indicator 865 circuit. Illumination 866 serves as feedback to the **user** of the **electronic** inhalant device 100 when optional display/alarm device 890 is not present. It is understood that a ...1035 is manipulated in conventional manner to program device 100 for scheduling if required by doctor . Retrieved information 1025 and 1030 also could represent a **diagnostic** report of the **device** 100 over the full recorded period of time which includes battery and sensor response. This information.under analysis, indicates if the instrument was functioning properly...deliver fully, utilization to satisfy the need.

In operation, the present invention device 100, being miniaturized, portable and having a familiar body housing 120 to **users** as non **electronic** medication inhaler dispensers,the user would install a conventional medication canister 215 in opening 130 for the dispensing of medication, Proximity reed switch 505 senses...

04jun03 14:36:04 User267149 Session D748.1

SYSTEM:OS - DIALOG OneSearch

File 2:INSPEC 1969-2003/May W4  
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File 8:Ei Compendex(R) 1970-2003/May W4  
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File 305:Analytical Abstracts 1980-2003/May W2  
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File 315:ChemEng & Biotec Abs 1970-2003/May  
(c) 2003 DECHEMA  
File 350:Derwent WPIX 1963-2003/UD,UM &UP=200335  
(c) 2003 Thomson Derwent  
File 347:JAPIO Oct 1976-2003/Feb(Updated 030603)  
(c) 2003 JPO & JAPIO  
\*File 347: JAPIO data problems with year 2000 records are now fixed. Alerts have been run. See HELP NEWS 347 for details.  
File 344:Chinese Patents Abs Aug 1985-2003/Feb  
(c) 2003 European Patent Office  
File 371:French Patents 1961-2002/BOPI 200209  
(c) 2002 INPI. All rts. reserv.  
\*File 371: This file is not currently updating. The last update is 200209.

06/04/2003

09/896,790

Set	Items	Description
S1	10934	IC=G06F-011/30
S2	4682	MC=T01-G05C
S3	13779	S1:S2
S4	10	S3 AND (DIAGNOS??????? (3N) (LOCAL????? OR HOME))
S5	10	IDPAT (sorted in duplicate/non-duplicate order)
S6	9	IDPAT (primary/non-duplicate records only)
S7	13769	S3 NOT S4
S8	15	S7 AND (HOME (3N) NETWORK? ? OR USER? ? (2N) (OWNED OR OWN))
S9	0	S8 AND ((FAULT????? OR DEFECT????? OR IMPERFECT?????) (3- N) (ELECTRONIC? ? OR DEVICE? ? OR APPARAT?????))
S10	0	S8 AND ((CONSUMER? ? OR USER? ?) (3N) ELECTRONIC? ?)
S11	15	IDPAT S8 (sorted in duplicate/non-duplicate order)

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6/3,AB/2 (Item 2 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
(c) 2003 Thomson Derwent. All rts. reserv.

014641822

WPI Acc No: 2002-462526/200249

Related WPI Acc No: 2001-488653; 2002-009487

XRPX Acc No: N02-364680

Monitoring condition invoking method for machines in plant, involves  
receiving and analyzing vibration data from machines, by **local**  
experts to **diagnose** condition of machines

Patent Assignee: LOFALL D A (LOFA-I); REID A J (REID-I)

Inventor: LOFALL D A; REID A J

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20020032544	A1	20020314	US 99134982	P	19990520	200249 B
			US 2000477959	A	20000105	
			US 2001947134	A	20010905	

Priority Applications (No Type Date): US 99134982 P 19990520; US 2000477959  
A 20000105; US 2001947134 A 20010905

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 20020032544	A1		16	G06F-011/30	Provisional application US 99134982

Cont of application US 2000477959

Cont of patent US 6298308

Abstract (Basic): US 20020032544 A1

Abstract (Basic):

NOVELTY - A network of automated local experts (16) is established at fixed locations. The vibration data from the machines is received and analyzed by the **local** experts to **diagnose** ~~the condition~~ of machines. The diagnostic information is ~~transmitted~~ from local experts to machines through a network.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for machine monitoring condition invoking system.

USE - To monitor and diagnose the conditions of several machines for predictive maintenance in plant.

ADVANTAGE - The machine failure or impending failures are easily **diagnosed** by the **local** experts based on vibration conditions received from the machines. The appropriate persons are effectively indicated to maintain the condition of machines properly by providing diagnostic information to persons through network.

DESCRIPTION OF DRAWING(S) - The figure shows the diagnostic network system with automated local experts.

Local expert (16)

pp; 16 DwgNo 1/5

06/04/2003

09/896,790

6/3,AB/3 (Item 3 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
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013939822

WPI Acc No: 2001-424036/200145

XRFX Acc No: N01-314474

Distributed diagnostic system for monitoring machines, has local monitoring device with data processor that analyzes local data using set of weighting parameters for **local diagnostic** purposes

Patent Assignee: EMERSON ELECTRIC CO (EMEL )

Inventor: ALGUINDIGUE I E; BAUER R P; BONNETT A H; BUCKLEY G W; DIVLJAKOVIC V; GRUDKOWSKI T W; HANNULA R I; HENDERSON M I; KLINE J A; LYNCH J P;

QUIST N L

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 6199018	B1	20010306	US 9834767	A	19980304	200145 B

Priority Applications (No Type Date): US 9834767 A 19980304

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 6199018	B1		40	G01R-023/00	

Abstract (Basic): US 6199018 B1

Abstract (Basic):

NOVELTY - A local monitoring device (12) has a data processor that receives a set of weighting parameters from a centralized data processor, and analyzes the local data using the set of weighting parameters for **local diagnostic purposes**. ~~The data processor receives local data from a sensor which collects local data concerning at least one machine associated with the local monitoring device.~~

DETAILED DESCRIPTION - The central data processor, coupled to the local monitoring devices, receives the local data from the local monitoring devices. The central data processor generates a set of weighting parameters for each local monitoring device. INDEPENDENT CLAIMS are also included for the following:

- (a) an apparatus for locally monitoring a rotating electric machine for diagnostic purposes;
- (b) an apparatus for producing an electrical signal indicative of the rotational speed frequency of the rotor of an induction machine;
- (c) a method of determining the slip of an induction machine;
- (d) a monitoring device;
- (e) and a method of determining the load characteristics of an electric machine.

USE - Used for monitoring rotating machines e.g. motors. Used in e.g. paper mill industry. Used for predicting the expected lifetime for and the failure of rotating machines.

ADVANTAGE - Ensures reliable and continued operations of the machines. Avoids unexpected failures of the machines. Allows users to identify potential problems at an early stage and either take steps to avoid the potential problem or replace the suspect machinery. Eliminates dependence on speed sensing devices. Enables effective use of space since components that require big spaces are not used.

DESCRIPTION OF DRAWING(S) - The figure shows diagram of the

1

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distributed diagnostic control system.  
Local monitoring device (12)  
pp; 40 DwgNo 1/14

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6/3,AB/4 (Item 4 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
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013066658

WPI Acc No: 2000-238530/200021

XRPX Acc No: N00-178980

Process to recognise errors in subsystems of vehicle - with central  
**diagnostic** module connected with **local diagnostics**  
modules so intermediate condition between normal and error situation of  
local modules are available to central module

Patent Assignee: SIEMENS AG (SIEI )

Inventor: JEHLE M; LAST B; TREINIES S

Number of Countries: 002 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
DE 19841260	A1	20000316	DE 1041260	A	19980909	200021 B
FR 2783067	A1	20000310	FR 9911120	A	19990906	200021

Priority Applications (No Type Date): DE 1041260 A 19980909

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
DE 19841260	A1		6	G05B-023/02	
FR 2783067	A1			G06F-011/30	

Abstract (Basic): DE 19841260 A

The subsystems (21,22,3) are assigned a number of **local diagnosis** modules (12,122,123) which monitor the subsystems. The **local diagnostics** modules communicate with a central diagnosis module (11). They register an error with the central module if a defined error threshold is overshoot. Before the overshoot of an error threshold, the **local diagnosis** module reports an intermediate condition during the diagnosis cycle to the central module. The central modules controls the start, interruption, continuation or the cancellation of a function according to the reports of the local modules. The function controlled by the central diagnosis modules is a diagnosis procedure and/or adaptive process and/or a regulation action and/or an emergency operation of the control unit of the drive of the vehicle. The central module evaluates the reported conditions using the rules of fuzzy logic.

Different blocking statuses are assigned to different priorities. If several blocking conditions are reported, only the blocking condition of the highest priority is returned to the function.

ADVANTAGE - Provides efficient results even at very low error thresholds.

Dwg.1/3



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6/3,AB/5 (Item 5 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
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011823370

WPI Acc No: 1998-240280/199821

XRPX Acc No: N98-190025

Field apparatus used in process control system with several field devices  
- has data collection unit in apparatus collecting diagnostic data  
generated during test using diagnostic test routine with series of device  
or process diagnostic instructions, communication unit sends collected  
data via bus to host

Patent Assignee: FISHER CONTROLS INT INC (FISH-N)

Inventor: BROWN L K; BRUNS H A; LARSON B H; BURNS H A

Number of Countries: 080 Number of Patents: 011

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 9814848	A1	19980409	WO 97US17739	A	19971001	199821 B
AU 9746059	A	19980424	AU 9746059	A	19971001	199835
EP 929850	A1	19990721	EP 97944600	A	19971001	199933
			WO 97US17739	A	19971001	
US 5970430	A	19991019	US 96726262	A	19961004	199950
			US 97922938	A	19970903	
BR 9712261	A	19990824	BR 9712261	A	19971001	200001
			WO 97US17739	A	19971001	
CN 1232553	A	19991020	CN 97198541	A	19971001	200009
US 6026352	A	20000215	US 96726262	A	19961004	200016
			US 97922938	A	19970903	
			US 98167766	A	19981007	
EP 1022626	A2	20000726	EP 97944600	A	19971001	200037
			EP 2000105765	A	19971001	
JP 2001524226	W	20011127	WO 97US17739	A	19971001	200204
			JP 98516855	A	19971001	
EP 929850	B1	20021211	EP 97944600	A	19971001	200282
			WO 97US17739	A	19971001	
			EP 2000105765	A	19971001	
DE 69717838	E	20030123	DE 617838	A	19971001	200315
			EP 97944600	A	19971001	
			WO 97US17739	A	19971001	

Priority Applications (No Type Date): US 97922938 A 19970903; US 96726262 A  
19961004; US 98167766 A 19981007

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

WO 9814848 A1 E 88 G05B-019/042

Designated States (National): AL AM AT AU AZ BA BB BG BR BY CA CH CN CU  
CZ DE DK EE ES FI GB GE GH HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT  
LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT  
UA UG UZ VN YU ZW

Designated States (Regional): AT BE CH DE DK EA ES FI FR GB GH GR IE IT  
KE LS LU MC MW NL OA PT SD SE SZ UG ZW

AU 9746059 A Based on patent WO 9814848

EP 929850 A1 E Based on patent WO 9814848

Designated States (Regional): DE FI FR GB SE

US 5970430 A G06F-015/40 CIP of application US 96726262

EIC2800

Irina Speckhard

308-6559

06/04/2003

09/896,790

BR 9712261 A Based on patent WO 9814848  
US 6026352 A G05B-019/418 CIP of application US 96726262  
Div ex application US 97922938  
EP 1022626 A2 E G05B-019/042 Div ex application EP 97944600  
Div ex patent EP 929850  
Designated States (Regional): AL AT BE CH DE DK ES FI FR GB GR IE IT LI  
LT LU LV MC NL PT RO SE SI  
JP 2001524226 W 86 G05B-019/02 Based on patent WO 9814848  
EP 929850 B1 E G05B-019/042 Related to application EP 2000105765  
Related to patent EP 1022626  
Based on patent WO 9814848  
Designated States (Regional): DE FI FR GB SE  
DE 69717838 E G05B-019/042 Based on patent EP 929850  
Based on patent WO 9814848

Abstract (Basic): WO 9814848 A

The apparatus is used in a process control network (fig 1) has several devices communicatively coupled by a two wire all digital bus with a connector for the field apparatus to the bus to enable all digital communication over the bus. A memory stores a diagnostic test routine with a series of device or process diagnostic test instructions and a controller for the stored instructions to implement a diagnostic test using the apparatus.

A data collection unit in the apparatus collects diagnostic data generated during a test and a communication unit sends the collected data over the bus to a host for processing. The controller has a program language interpreter interpreting the test instructions given the apparatus from another device via the bus.

USE - Relates to process control networks and to method and apparatus for performing **local** device and process **diagnostics** in process control network with distributed control functions.

ADVANTAGE - Diagnostic test routine is stored in and implemented by process controller to perform diagnostics on apparatus with necessity of reconfiguring control scheme associated with process control network.

Dwg.1/12

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6/3,AB/6 (Item 6 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
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011113785

WPI Acc No: 1997-091710/199709

XRPX Acc No: N97-075617

Multi-protocol network monitoring and **diagnosing** system for  
**local** area network - uses input-output and displaying unit in  
checking monitoring time for every computer and log of alarm generation,  
and displays generation of prim. and sec. alarms

Patent Assignee: NIPPON DENKI FIELD SERVICE KK (NIDE )

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
JP 8328972	A	19961213	JP 95132446	A	19950530	199709 B

Priority Applications (No Type Date): JP 95132446 A 19950530

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
JP 8328972	A		7 G06F-013/00	

Abstract (Basic): JP 8328972 A

The system uses a transceiver (2) in receiving and transmitting data which spreads to a LAN (1) and a test data respectively. A data analyser (3) analyses a communication protocol classification for every address of the received data. A timer monitor (4) is used in comparing the monitored data receiving space for every address to a monitoring time previously established for every computer (11A-11N). A memory (5) stores the analysed data and the monitoring time in a monitoring table. A magnetic memory (6) stores the monitoring table and an alarm generation log. A prim. generator (7) produces a prim. alarm when the computer without sending a constant time data is detected. A sec. generator (9) produces a sec. alarm when a response is not produced to the test data transmitted by a diagnostic unit (8).

The generated prim. and sec. alarms are displayed through an input-output and displaying unit (10). The input-output and displaying unit checks the setting of the monitoring time for every computer and the alarm generation log.

ADVANTAGE - Avoids excessive data traffic attaining effective data monitoring without reducing network efficiency.

Dwg.1/6

6/3,AB/7 (Item 7 from file: 347)  
DIALOG(R)File 347:JAPIO  
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04835498

## REMOTE DIAGNOSTIC SYSTEM FOR INSTRUMENTATION FACILITY

PUB. NO.: 07-128098 [JP 7128098 A]  
PUBLISHED: May 19, 1995 (19950519)  
INVENTOR(s): SHINDO NOBUHIRO  
              UENO TETSUYA  
              SUZUKI KIHACHIRO  
              HIGASHIYA TSUTOMU  
APPLICANT(s): NITTETSU HOKKAIDO SEIGYO SYST KK [000000] (A Japanese Company  
  or Corporation), JP (Japan)  
APPL. NO.: 05-274702 [JP 93274702]  
FILED: November 02, 1993 (19931102)

## ABSTRACT

PURPOSE: To enhance efficiency in the instrumentation maintenance work by constituting a remote **diagnostic** system of a **local** computer for comparing an instrumentation signal from the instrumentation facility in a factory with a normal operation pattern to make a decision of abnormality and delivering an abnormality signal, and a central computer for receiving and analyzing the abnormality signal.

CONSTITUTION: A normal operation pattern of instrumentation signal is preset in a local computer 5. A signal 1 from an instrumentation facility is fed through an isolator 2, an A/D converter 3, and an input terminal 4 to the computer 5 where the data is processed, stored, and edited before being displayed. An abnormal signal from the instrumentation facility is compared with the normal operation pattern at the computer 5 where an abnormal state is determined based on the variation rate, response speed, etc. A signal to this effect is then delivered through a modem 7, a telephone line 8, a selector 9, and a modem 10 to a central computer 12, where the data is analyzed, an abnormal state is determined, and a countermeasure is taken

6/3,AB/8 (Item 8 from file: 347)  
DIALOG(R)File 347:JAPIO  
(c) 2003 JPO & JAPIO. All rts. reserv.

03399233

## INITIAL DIAGNOSTIC SYSTEM FOR SUBSTRATE MOUNTING

PUB. NO.: 03-062133 [JP 3062133 A]  
PUBLISHED: March 18, 1991 (19910318)  
INVENTOR(s): SAKO SHOJI  
APPLICANT(s): TOSHIBA CORP [000307] (A Japanese Company or Corporation), JP  
(Japan)  
APPL. NO.: 01-196732 [JP 89196732]  
FILED: July 31, 1989 (19890731)  
JOURNAL: Section: P, Section No. 1210, Vol. 15, No. 218, Pg. 155, June  
04, 1991 (19910604)

## ABSTRACT

PURPOSE: To take a correct diagnosis by reading identification information on a back package substrate on the side of a mounted front substrate at the time of a system start-up and comparing it with the identification number of the front substrate, and diagnosing whether or not a correct couple of substrates are mounted.

CONSTITUTION: When the system is started up, the ID information conversion part 15 of the back mounted substrate 13 is accessed through the decoder 26 of the front mounted substrate 12 which incorporates a microprocessor 12, etc., mounted in the same slot of a mother board 11 to read the proper identification number of substrate 13 out in series and store it in an ID information register 24. Then the microprocessor 21 diagnoses whether or not the combination of the substrate couple is correct from the correspondence relation between the contents of the register 24 and the identification number of the substrate 12 which is read out of a local memory 22. This diagnosis result is reported to the outside through an F/F 27 and an interface mechanism is controlled. This constitution which makes an automatic diagnosis without viewing enables the combination of the correctly mounted substrate couple to be diagnosed without an oversight or misdiagnosis.

06/04/2003

09/896,790

6/3,AB/9 (Item 9 from file: 371)

000681069

Title: CIRCUIT APTE A RELEVER LA PRESENCE DE MAUVAIS FONCTIONNEMENTS DANS  
UN SYSTEME D'ELABORATION DE DONNEES GOUVERNE PAR UN MICROPROCESSEUR DE  
TYPE COMMERCIAL APPLIQUE DANS DES SYSTEMES TELEPHONIQUES

Patent Applicant/Assignee: ITALTEL ITALIANA TELECOMUNICAZIO

Inventor(s): GIOVANNI CHIABRANDO

Legal Representative: OFFICE BLETRY

Document Type: Patent / Brevet

Patent and Priority Information (Country, Number, Date):

Patent: FR 2490366 - 19820319

Application: FR 8116805 - 19810904

Priority Application: IT 8024701 - 19800917

Abstract:

DANS CE CIRCUIT, IL EST PREVU QU'A CHAQUE UNITE DU SYSTEME  
D'ELABORATION DE DONNEES, SOIENT ASSOCIES DES MOYENS D'AUTOCONTROLE APTES  
A EMETTRE UN SIGNAL D'ALARME EN REPONSE AU RELEVEMENT D'UNE ERREUR  
COMMISE PAR L'UNITE QU'ILS CONTROLENT. L'EMISSION D'UN SIGNAL D'ALARME  
DE LA PART DE L'UN QUELCONQUE DES MOYENS D'AUTOCONTROLE PROVOQUE  
L'ACTIVATION D'UNE UNITE DE DIAGNOSTIC QUI SE CONNECTE AU BUS DES DONNEES  
DU SYSTEME D'ELABORATION, APRES AVOIR DECONNECTE ET MIS A ZERO LE  
MICROPROCESSEUR, ET MET EN TRAIN L'EXECUTION D'UN PROGRAMME DE  
**DIAGNOSTIC** TENDANT A **LOCALISER** L'ORGANE DONT LE MAUVAIS  
FONCTIONNEMENT A PROVOQUE L'EMISSION DU SIGNAL D'ALARME.

Legal Status (Type, Action Date, BOPI No, Description):

Publication 19820319 8211 Date published

Lapse 19840530 Date lapsed

06/04/2003

09/896,790

11/3,AB/1 (Item 1 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
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015252482

WPI Acc No: 2003-313408/200330

Related WPI Acc No: 2003-268674; 2003-313407

XRPX Acc No: N03-249472

Distributed **network** e.g. **home networks** including  
centralized resource manager with power switching system to automatically  
detect disconnection or power off state of connected device e.g. TV tuner

Patent Assignee: UCENTRIC HOLDINGS INC (UCEN-N)

Inventor: LIVELY D F; SPARRELL C J; VASILEVSKY A; WATLINGTON J

Number of Countries: 097 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200325727	A1	20030327	WO 2002US27015	A	20020823	200330 B

Priority Applications (No Type Date): US 2002372490 P 20020412; US  
2001323618 P 20010920; US 2002350431 P 20020119

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
WO 200325727	A1	E	50	G06F-001/26	

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA  
CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN  
IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ  
PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW  
Designated States (Regional): AT BE BG CH CY CZ DE DK EA EE ES FI FR GB  
GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SK SL SZ TR TZ UG ZM ZW

Abstract (Basic): WO 200325727 A1

Abstract (Basic):

NOVELTY - Includes a centralized resource manager (300) that  
allocates the resources of network clients and a network-associated  
media server, in response to requests for media services via the  
distributed network.

DETAILED DESCRIPTION - The resource manager discovers when devices  
are added or removed from the network by using e.g. a current, IR, or  
electromagnetic field sensing system to determine when video devices  
are turned off so that resources associated with any device ~~not~~ in use  
may be reallocated elsewhere. Alternatively a power switching system  
controls the ON or OFF state of the devices so that ~~resources~~  
associated with any device in the OFF state may be reallocated  
elsewhere.

USE - As e.g. **home networks** to manage resources  
available on the network e.g. network bandwidth, CPU allocation, TV  
tuners, MPEG encoders and decoders, disk bandwidth, and ~~input/output~~  
devices.

ADVANTAGE - Enables efficient allocation and management of  
distributed resources.

DESCRIPTION OF DRAWING(S) - The drawing shows a block diagram of a  
set-top-box device that may manage the distributed network.

Centralized resource manager (300)  
pp; 50 DwgNo 18/18

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11/3,AB/2 (Item 2 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
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015252481

WPI Acc No: 2003-313407/200330

Related WPI Acc No: 2003-268674; 2003-313408

XRPX Acc No: N03-249471

Centralized resource manager for a **home** entertainment **network**  
detects whether presentation devices in the network are switched on or  
off and relocates resources associated with devices that are switched off

Patent Assignee: UCENTRIC HOLDINGS INC (UCEN-N)

Inventor: KOKOVIDIS G; LIVELY D F; SPARRELL C J; VASILEVSKY A; WATLINGTON J

Number of Countries: 101 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200325726	A1	20030327	WO 2002US27014	A	20020823	200330 B

Priority Applications (No Type Date): US 2002372490 P 20020412; US  
2001323618 P 20010920; US 2002350431 P 20020119

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
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WO 200325726	A1	E	53	G06F-001/26	
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Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA  
CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN  
IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ  
OM PH PL PT RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG US UZ VC VN  
YU ZA ZM ZW

Designated States (Regional): AT BE BG CH CY CZ DE DK EA EE ES FI FR GB  
GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SK SL SZ TR TZ UG ZM ZW

Abstract (Basic): WO 200325726 A1

Abstract (Basic):

NOVELTY - The centralized resource manager identifies, assigns and reserves available network resources in response to user requests. The manager detects when devices, such as a TV connected in the network are switched off and relocates resources (such as network bandwidth, CPU allocation, TV tuners, MPEG encoders and decoders,) associated with switched off devices elsewhere in the network. The manager also detects when devices are added to or removed from the network.

USE - In **home** entertainment **networks** with TVs, video recorders, personal computers, telephones and so on.

ADVANTAGE - Provides centralized management of a distributed network.

DESCRIPTION OF DRAWING(S) - Figure 12 is a schematic view of an infrared sensing system to detect the ON or OFF status of a TV.

pp; 53 DwgNo 12/18



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09/896,790

11/3,AB/3 (Item 3 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
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015119250

WPI Acc No: 2003-179773/200318

XRPX Acc No: N03-141507

Apparatus controller for **home network** system, has event  
issuing unit that publishes event about condition change generated in  
controlled device based on listener registered into object

Patent Assignee: SONY CORP (SONY )

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
JP 2003022225	A	20030124	JP 2001207478	A	20010709	200318 B

Priority Applications (No Type Date): JP 2001207478 A 20010709

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
JP 2003022225	A	13	G06F-013/00	

Abstract (Basic): JP 2003022225 A

Abstract (Basic):

NOVELTY - An event issuing unit publishes an event about the  
condition change generated in a controlled device based on the listener  
registered into an object corresponding to the controlled device.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for an  
apparatus controlling method.

USE - For **home network** system.

ADVANTAGE - Restrains load of server and terminal. Ensures  
effective treatment of digital equipment e.g. video recorder, printer,  
simultaneously. Transmits condition change of controlled device to  
terminal connected top network.

DESCRIPTION OF DRAWING(S) - The figure shows the block diagram of  
an apparatus control system. (The drawing includes non-English language  
text).

pp; 13 DwgNo 1/10

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11/3,AB/4 (Item 4 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
(c) 2003 Thomson Derwent. All rts. reserv.

014777449

WPI Acc No: 2002-598155/200264

XRPX Acc No: N02-474324

Secure communication maintaining method involves tunneling packets addressed for client between home and relay servers, based on established security association and address translation for client

Patent Assignee: ECUTEL (ECUT-N); GADI H (GADI-I); MAKINENI G (MAKI-I);

NAGARAJAN R (NAGA-I); TRAN D (TRAN-I); ZHANG Q (ZHAN-I)

Inventor: GADI H; MAKINENI G; NAGARAJAN R; TRAN D; ZHANG Q

Number of Countries: 098 Number of Patents: 003

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20020066036	A1	20020530	US 2000247008	A	20001113	200264 B
			US 2001987168	A	20011113	
WO 200242861	A2	20020530	WO 2001US43066	A	20011113	200264
AU 200239249	A	20020603	AU 200239249	A	20011113	200264

Priority Applications (No Type Date): US 2000247008 P 20001113; US 2001987168 A 20011113

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 20020066036	A1	14	H04L-009/00	Provisional application	US 2000247008

WO 200242861 A2 E G06F-000/00

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW

AU 200239249 A H04L-009/00 Based on patent WO 200242861

Abstract (Basic): US 20020066036 A1

Abstract (Basic):

NOVELTY - A registration message identifying new IP address location, is encapsulated and transmitted by a relay server to a home server (14). Packets addressed for client (24) are tunneled between home and relay servers, based on established security association between home and relay servers and address translation between client's permanent and new IP address. The packets are decapsulated and forwarded to the client.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

- (1) Secure communication maintenance system; and
- (2) Method for communicating between roaming client and home server.

USE - For maintaining secure communication between a **home network** server and a client.

ADVANTAGE - Allows roaming users to securely access their **home network** and provides secure internet communication from any location and at any time. Eliminates the burden of the user with respect to management of network interfaces.

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DESCRIPTION OF DRAWING(S) - The figure shows a computer network configuration.

Home server (14)

Client (24)

pp; 14 DwgNo 2/7

11/3,AB/5 (Item 5 from file: 350)  
 DIALOG(R)File 350:Derwent WPIX  
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014754203

WPI Acc No: 2002-574907/200261

XRPX Acc No: N02-455789

Integrated networking device for Inter/Intra networks, isolates and analyzes packets received through networks of different mediums which are decrypted, encrypted and transmitted by switching fabric according to routing protocol

Patent Assignee: SOORIYA NETWORKS INC (SOOR-N); VAIRAVAN K P (VAIR-I)

Inventor: VAIRAVAN K P

Number of Countries: 098 Number of Patents: 003

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20020083344	A1	20020627	US 2000258156	A	20001221	200261 B
			US 2001894224	A	20010627	
WO 200250680	A1	20020627	WO 2001US50023	A	20011220	200261
AU 200234100	A	20020701	AU 200234100	A	20011220	200264

Priority Applications (No Type Date): US 2000258156 P 20001221; US 2001894224 A 20010627

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
US 20020083344	A1	25	G06F-011/30	Provisional application US 2000258156

WO 200250680 A1 E G06F-011/30

Designated States (National): AE AG-AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZM ZW

AU 200234100 A G06F-011/30 Based on patent WO 200250680

Abstract (Basic): US 20020083344 A1

Abstract (Basic):

NOVELTY - A packet processor receiving packets through networks of different medium, comprises a packet-filtering firewall and stateful-filtering firewall for isolating and analyzing received packets with respect to their content and state information, respectively. A security processor encrypts and decrypts the packets, and the encrypted packets are transmitted to a network port by a switching fabric in accordance with a routing protocol.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for computing devices networking method.

USE - For copper-based, optical and wireless inter/intra networks such as LAN, WAN, MAN, ISDN, DSL, plain old telephone systems (POTS), fiber to home (FTTH) network.

ADVANTAGE - Enhances networking functions and simplifies upgrading and maintenance processes for networking devices due to the centralization of the functions and its compatibility with networks of different medium.

DESCRIPTION OF DRAWING(S) - The figure shows the flowchart

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illustrating the steps for receiving a packet from network.  
pp; 25 DwgNo 6A/10

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09/896,790

11/3,AB/6 (Item 6 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
(c) 2003 Thomson Derwent. All rts. reserv.

014595416

WPI Acc No: 2002-416120/200244

XRPX Acc No: N02-327422

Community based performance monitoring system has user interface which remotely programs computing device of other users, to monitor availability of computing devices for use as agents in monitoring sessions

Patent Assignee: MERCURY INTERACTIVE CORP (MERC-N)

Inventor: REICHMAN D

Number of Countries: 096 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200223434	A2	20020321	WO 2001US28129	A	20010905	200244 B
AU 200188917	A	20020326	AU 200188917	A	20010905	200251

Priority Applications (No Type Date): US 2000659476 A 20000911

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

WO 200223434 A2 E 27 G06F-017/60

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PH PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW

AU 200188917 A G06F-017/60 Based on patent WO 200223434

Abstract (Basic): WO 200223434 A2

Abstract (Basic):

NOVELTY - Agent components (32) which run on computing devices (34) and remotely programmable over a network, provide functionality for accessing and monitoring end user performance of the server system (30). A controller (40) comprising a user interface (40A) by which the computing devices of other users are remotely programmed, monitors the availability of the computing devices for use as agents within monitoring sessions.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- (a) Server system performance monitoring system;
- (b) User computer;
- (c) Monitoring service operation method;
- (d) Community based performance monitoring service provision method;
- (e) Computer network hop delay monitoring method

USE - For monitoring end user performance of transactional servers, websites or other types of multi-user systems. Also applicable for monitoring performance of WAP phones, residential gateway interconnecting **home networks** to outside **networks**.

ADVANTAGE - The agent component does not affect the performance of the computing devices, as the agent components are designed to monitor the transaction server only when the computing devices are in idle or lightly loaded state. The need for service provider to setup and administer agent computers are eliminated or reduced by using the

shared community resources to host the agent software. The user can monitor the systems from the user locations of any other community members.

DESCRIPTION OF DRAWING(S) - The figure shows an illustrative architectural view of the community based performance monitoring system.

- Server system (30)
- Agent components (32)
- Computing devices (34)
- Controller (40)
- User interface (40A)

pp; 27 DwgNo 1/5

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11/3,AB/7 (Item 7 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
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014595076

WPI Acc No: 2002-415780/200244

Related WPI Acc No: 2002-415876; 2002-415877

XRPX Acc No: N02-327105

Transferred data authentication for maintaining network security,  
involves comparing at least one token transmitted during additional  
transmission, with token transmitted during initial transmission

Patent Assignee: XANBOO INC (XANB-N)

Inventor: CHEN J; REZVANI B

Number of Countries: 097 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200221280	A1	20020314	WO 2001US28090	A	20010906	200244 B
AU 200188893	A	20020322	AU 200188893	A	20010906	200251

Priority Applications (No Type Date): US 2000698764 A 20001027; US  
2000230301 P 20000906; US 2000230319 P 20000906

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
WO 200221280	A1	E	47	G06F-011/30	

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA  
CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN  
IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ  
PH PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW  
Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR  
IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW

AU 200188893 A G06F-011/30 Based on patent WO 200221280

Abstract (Basic): WO 200221280 A1

Abstract (Basic):

NOVELTY - Tokens are sent along with data by a sender to a receiver during initial transmission. The number of tokens transmitted during additional transmission are determined. The transmission of data is authenticated by comparing at least one token transmitted during additional transmission, with the token transmitted during initial transmission.

USE - For authenticating data transfer between senders such as computers, home appliances, camera, home gateways, etc., to receivers such as database servers, web servers, gateways, firewall servers, ISP gateways, **network** enabled cameras, networked **home** appliances etc., to maintain security of global computer network.

ADVANTAGE - Reduces processing power for effecting authentication of the transferred data. Employs hybrid scheme which guarantees that third parties do not impersonate the sender. Enables fine tuning of required security for different types of transmissions.

DESCRIPTION OF DRAWING(S) - The figure shows a schematic view of the client server system.

pp; 47 DwgNo 1/8



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11/3,AB/8 (Item 8 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
(c) 2003 Thomson Derwent. All rts. reserv.

014480226

WPI Acc No: 2002-300929/200234

XRPX Acc No: N02-235923

Communication method for controlling **home** appliances through  
**network**, involves converting predetermined message into  
communication protocol, after authentication

Patent Assignee: TOSHIBA KK (TOKE )

Inventor: SAITO T

Number of Countries: 002 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
JP 2002077274	A	20020315	JP 2000263873	A	20000831	200234 B
US 20020046349	A1	20020418	US 2001942749	A	20010831	200234

Priority Applications (No Type Date): JP 2000263873 A 20000831

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
JP 2002077274	A	14	H04L-012/66	
US 20020046349	A1		G06F-011/30	

Abstract (Basic): JP 2002077274 A

Abstract (Basic):

NOVELTY - An access number corresponding to a gateway device (2) connected to a **home network** (1), is designated from an external terminal. A message corresponding to the device is authenticated by a server (4), based on which the message is converted into protocol. The converter message is transmitted to a VTR through **home network**.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(a) Home gateway device;

(b) Access server

USE - For controlling domestic appliances, etc.

ADVANTAGE - A highly secured home appliance controlling method is obtained.

DESCRIPTION OF DRAWING(S) - The figure shows the entire component of communication system. (Drawing includes non-English language text).

**Home network** (1)

Home gateway device (2)

Access server (4)

pp; 14 DwgNo 1/11

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11/3,AB/9 (Item 9 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
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014241154

WPI Acc No: 2002-061854/200208

XRPX Acc No: N02-045940

Internet/network security system for checking security of a client from a remote facility in order to test for vulnerability to hacking or unauthorized entry

Patent Assignee: NETWORK SECURITY SYSTEMS INC (NETW-N); GAUL S E (GAUL-I)

Inventor: GAUL D F; GAUL S F; GAUL S E

Number of Countries: 096 Number of Patents: 004

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200173553	A1	20011004	WO 2001US9689	A	20010327	200208 B
AU 200149471	A	20011008	AU 200149471	A	20010327	200208
US 20010034847	A1	20011025	US 2000192365	A	20000327	200208
			US 2001817347	A	20010327	
EP 1259882	A1	20021127	EP 2001922701	A	20010327	200302
			WO 2001US9689	A	20010327	

Priority Applications (No Type Date): US 2000192365 P 20000327; US 2001817347 A 20010327

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
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WO 200173553	A1	E	42	G06F-011/00	
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Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW

AU 200149471	A			G06F-011/00	Based on patent WO 200173553
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US 20010034847	A1			H04L-009/32	Provisional application US 2000192365
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EP 1259882	A1	E		G06F-011/00	Based on patent WO 200173553
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Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI TR

Abstract (Basic): WO 200173553 A1

Abstract (Basic):

NOVELTY - A network security vulnerability testing application (41) and an internal security vulnerability testing application (38) may have encrypted connections (35) to the workstation browser (36) of a user and one of the first stages of both applications is used to inform the **user** about their **own** company's computer network or system. Both applications report back to the user about host information on a given sub-network (39,40) and the user then launches security testing against any system in their sub-network.

DETAILED DESCRIPTION - AN INDEPENDENT CLAIM is included for a method of determining computer network vulnerability to hacking.

USE - Testing computer network vulnerability to hacking or unauthorized entry.

ADVANTAGE - Easy inexpensive updating of network security systems.

DESCRIPTION OF DRAWING(S) - The drawing shows the system

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Network and internal security vulnerability testing applications  
(41,38)  
Browser (36)  
Sub-networks (39,40)  
pp; 42 DwgNo 1/9

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09/896,790

11/3,AB/10 (Item 10 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
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014017885

WPI Acc No: 2001-502099/200155

Related WPI Acc No: 2001-601077; 2002-024923; 2002-442252

XRPX Acc No: N01-372374

Interface providing method in computer system, involves notifying only the events that satisfy event subscriber definition, to each event subscriber

Patent Assignee: MICROSOFT CORP (MICT )

Inventor: HUDIS I; MCCOLLUM R; NOVIK L

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 6275957	B1	20010814	US 98158171	A	19980921	200155 B
			US 98175592	A	19981020	

Priority Applications (No Type Date): US 98175592 A 19981020; US 98158171 A 19980921

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 6275957	B1	29	G06F-011/30	CIP of application	US 98158171

Abstract (Basic): US 6275957 B1

Abstract (Basic):

NOVELTY - Event provider definition and event subscriber definition which are expressed in terms of hierarchical classification of events, are registered with event filtering and reporting component. Events reported by the event providers are filtered and only the events that satisfy the event subscriber definition are notified to each event subscriber.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for a system for providing an interface between event providers and event subscribers.

USE - For detecting occurrence of events in computer system such as installation of modems in a computer network, drive activity and errors, installation or deinstallation of hardware components, network server activities and failures, **home**, business or **network** security breaches.

ADVANTAGE - Since only events that satisfy event subscriber definition or reported, data traffic within the system is not increased.

DESCRIPTION OF DRAWING(S) - The figure shows the system for filtering events and reporting filtered events to event subscriber.  
pp; 29 DwgNo 3/13

06/04/2003

09/896,790

11/3,AB/11 (Item 11 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
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013913097

WPI Acc No: 2001-397310/200142

XRPX Acc No: N01-292787

Network slot synchronization for computer network, by allowing transmission in channel outside designated time slot of device if clear channel assessment shows non-usage of previous time slot by associated device

Patent Assignee: SHAREWAVE INC (SHAR-N)

Inventor: EKAMBARAM N; GUBBI R R; PATRA N B; SEBASTIAN D

Number of Countries: 093 Number of Patents: 006

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200106709	A1	20010125	WO 2000US19904	A	20000720	200142 B
AU 200063614	A	20010205	AU 200063614	A	20000720	200142
EP 1195025	A1	20020410	EP 2000950520	A	20000720	200232
			WO 2000US19904	A	20000720	
KR 2002029428	A	20020418	KR 2002700805	A	20020119	200269
CN 1361963	A	20020731	CN 2000810609	A	20000720	200279
JP 2003505929	W	20030212	WO 2000US19904	A	20000720	200321
			JP 2001511036	A	20000720	

Priority Applications (No Type Date): US 99357463 A 19990720

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

WO 200106709 A1 E 36 H04L-012/28

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY CA CH  
CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE  
KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU  
SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR  
IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TZ UG ZW

AU 200063614 A H04L-012/28 Based on patent WO 200106709

EP 1195025 A1 E H04L-012/28 Based on patent WO 200106709

Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT  
LI LT LU LV MC MK NL PT RO SE SI

KR 2002029428 A H04L-012/56

CN 1361963 A H04L-012/28

JP 2003505929 W 49 H04L-012/28 Based on patent WO 200106709

Abstract (Basic): WO 200106709 A1

Abstract (Basic):

NOVELTY - Synchronization is maintained within a common communication channel with designated transmission time slot for various devices of computer network, by allowing transmission within the channel outside the designated time slot of device only if a clear channel assessment indicates that a previous time slot is not being utilized by associated device.

DETAILED DESCRIPTION - A clear channel assessment is performed which takes into account the device designated transmission time slot within the communication channel with respect to those of other network device. The device includes an early transmission timer to trigger the construction of packets for transmission within the network in advance of the designated time slot.

USE - For computer network.

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ADVANTAGE - Useful in a wireless computer **network** located in **home** environment. Allows the client device to maintain their relative sequence with one another within the slotted link structure of the communication channel. Allows for early transmission without undue delay.

DESCRIPTION OF DRAWING(S) - The figure shows generalized network structure that is supported by a wireless protocol.

pp; 36 DwgNo 1/9

06/04/2003

09/896,790

11/3,AB/12 (Item 12 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
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013913067

WPI Acc No: 2001-397280/200142

XRPX Acc No: N01-292757

Monitor for **home network**, has non-volatile memory in which  
collected historical log data of network is stored  
Patent Assignee: SONY ELECTRONICS INC (SONY ); SONY CORP (SONY )  
Inventor: SMYERS S D  
Number of Countries: 093 Number of Patents: 003  
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200077648	A1	20001221	WO 2000US15549	A	20000606	200142 B
AU 200051804	A	20010102	AU 200051804	A	20000606	200142
US 6430629	B1	20020806	US 99337207	A	19990610	200254

Priority Applications (No Type Date): US 99337207 A 19990610

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
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WO 200077648	A1	E 10	G06F-013/14	
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Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY CA CH  
CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE  
KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO  
RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR  
IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TZ UG ZW

AU 200051804	A	G06F-013/14	Based on patent WO 200077648
US 6430629	B1	G06F-013/14	

Abstract (Basic): WO 200077648 A1

Abstract (Basic):

NOVELTY - A CPU (20) collects historical log data by monitoring  
state of devices such as VCR (110), camera (120), thermometer (140) and  
a set top box (130) in 1394 network (5). The collected historical log  
data is stored in a memory (80) that is selected from group of HD,  
flash RAM and EPROM. The stored data is accessed through an interface  
(160) that has a touch screen.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for  
network monitoring method.

USE - For monitoring 1394 **home network** that connects  
VCR, digital camera, set top box (STB) and thermometer.

ADVANTAGE - Enables monitoring states of VCR, STB for required  
interval through interface. Enables efficient recording even by digital  
camera.

DESCRIPTION OF DRAWING(S) - The figure shows the block diagram of  
network monitor.

1394 network (5)  
CPU (20)  
Memory (80)  
VCR (110)  
Set top box (130)  
Thermometer (140)  
Interface (160)  
pp; 10 DwgNo 1/2

11/3,AB/13 (Item 13 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
(c) 2003 Thomson Derwent. All rts. reserv.

013741403

WPI Acc No: 2001-225633/200123

XRPX Acc No: N01-160219

Method of operating LAN, e.g. for control and monitoring system in home,  
controlling devices based on status, instruction and heuristics retrieved  
from database

Patent Assignee: AT & T CORP (AMTT )

Inventor: SILVERMAN D P

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 6163270	A	20001219	US 9846048	A	19980323	200123 B

Priority Applications (No Type Date): US 9846048 A 19980323

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
US 6163270	A	11	H04L-012/24	

Abstract (Basic): US 6163270 A

Abstract (Basic):

NOVELTY - The method consists of monitoring a device status, obtaining instructions, and controlling the devices based on the status, instruction and heuristics retrieved from a database. The status is then compared with the heuristics to detect a difference and generate an alert.

DETAILED DESCRIPTION - An alert or command signal is generated for the device based on the difference result and the instruction. The heuristics include device states, conditions, user behavior patterns and times of day. The instruction is expressed as an if-then or if-then-else logical construction. An INDEPENDENT CLAIM is also included for an apparatus for operating a LAN.

USE - For operating a LAN which may be used in e.g. a **home** automation, or similar **network**, and uses an installed cable TV cable for its operation and control.

DESCRIPTION OF DRAWING(S) - The drawing is a flowchart illustrating the operation of the home LAN.

pp; 11 DwgNo 1/9



11/3,AB/14 (Item 14 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
(c) 2003 Thomson Derwent. All rts. reserv.

007332407

WPI Acc No: 1987-329414/198747

XRPX Acc No: N87-246533

Control plug terminating **network** linking **home** computers -  
uses shift register with logic circuits to monitor code put on network by  
master station to select slave

Patent Assignee: CLASSIQUES HACHETTE (CLAS-N)

Inventor: SUBERT J C

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
FR 2596545	A	19871002	FR 864248	A	19860325	198747 B

Priority Applications (No Type Date): FR 864248 A 19860325

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
FR 2596545	A	9		

Abstract (Basic): FR 2596545 A

The control plug is connected at the end of the network to close the circuits to each unit, and comprises a shift register (B) with inputs connected to the cassette recorder connector (A) on the slave computers and to a dual NOR gate (C). The outputs of the shift register (B) determine the coding of the plug (11) so that if the master station (1) sends the correct code to the connector it authorises access of a slave to the network.

A particular signal sent by a program permits the switching of the NOR gates from the shift register and enables reading of the connector code.

USE/ADVANTAGE - Control plug allows cassette recorder connection of home computer to connect into simple network of kind used in schools.

3/3

11/3,AB/15 (Item 15 from file: 347)  
DIALOG(R)File 347:JAPIO  
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07078714

AUTOMATED SYSTEM FOR COPING WITH COMPUTER FAULT AND RECORDING MEDIUM HAVING  
FAULT COPING AUTOMATION PROGRAM RECORDED THEREON

PUB. NO.: 2001-306360 [JP 2001306360 A]  
PUBLISHED: November 02, 2001 (20011102)  
INVENTOR(s): KANAMARU YOKO  
NAKAMU HISASHI  
HONDA SHINJI  
APPLICANT(s): NEC FIELDING LTD  
APPL. NO.: 2000-127791 [JP 2000127791]  
FILED: April 27, 2000 (20000427)

ABSTRACT

PROBLEM TO BE SOLVED: To provide an automated system for coping with a computer fault to automatically perform fault analysis, arrangement of components and maintenance personnel of a computer.

SOLUTION: In the automated system for coping with a computer fault, fault information is given from a user computer 10 to a fault analysis system 20 via a communication network 100 when a fault is generated in the user computer 10 or other computers **owned** by a **user** and the fault analysis is performed on the basis of the given information. As a result of analysis, information regarding suspected components to be required is given to a component management system 30, the suspected components are arranged and sent to the user's destination. In addition, the fault information and fault analysis result information are transmitted to a maintenance personnel assignment system 40 and the corresponding maintenance personnel are allocated in the maintenance personal assignment system 40. Fault coping instruction information is transmitted to a portable terminal 50 carried by the corresponding maintenance personnel and the maintenance personnel carry out repair of the computer with fault on the basis of the fault coping instruction information.

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04jun03 14:50:41 User267149 Session D749.1

SYSTEM:OS - DIALOG OneSearch

File 2:INSPEC 1969-2003/May W4  
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(c) 2003 American Mathematical Society  
File 275:Gale Group Computer DB(TM) 1983-2003/Jun 04  
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File 696:DIALOG Telecom. Newsletters 1995-2003/Jun 03  
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06/04/2003

09/896,790

Set	Items	Description
S1	11787	DIAGNOS????????(3N)(DEVICE? ? OR APPARAT????????)
S2	5844	DIAGNOS????????(3N)(LOCAL?????? OR HOME)
S3	51134	(CONSUMER? ? OR USER? ?)(3N)ELECTRONIC? ?
S4	22968	(FAULT?????? OR DEFECT????? OR IMPERFECT????????)(3N)(ELECT- RONIC? ? OR DEVICE? ? OR APPARAT?????)
S5	58	S1 AND S2
S6	0	S5 AND S3
S7	2	S5 AND S4
S8	7	S5 AND ((DIAGNOS???????? OR IDENTIF???????? OR DETECT??????- ?? OR SENS????????)(3N)(FAULT?????? OR DEFECT????? OR IMPERFE- CT???????? OR PROBLEM? ?))

7/3,AB/1 (Item 1 from file: 94)  
DIALOG(R)File 94:JICST-EPlus  
(c)2003 Japan Science and Tech Corp(JST). All rts. reserv.

05043112 JICST ACCESSION NUMBER: 01A1026167 FILE SEGMENT: JICST-E  
**Diagnosis** of power distribution **apparatus** on a pole by thermal  
image processing.

ISHINO RYUICHI (1)

(1) Central Res. Inst. Electric Power Ind., Communication & Information  
Res. Lab., JPN

Denshi Joho Tsushin Gakkai Gijutsu Kenkyu Hokoku(IEIC Technical Report  
(Institute of Electronics, Information and Communication Engineers),  
2001, VOL.101,NO.298(OFS2001 20-28), PAGE.1-8, FIG.14, TBL.1, REF.16

JOURNAL NUMBER: S0532BBG

UNIVERSAL DECIMAL CLASSIFICATION: 621.315/.316 681.3:621.397.3

LANGUAGE: Japanese COUNTRY OF PUBLICATION: Japan

DOCUMENT TYPE: Journal

ARTICLE TYPE: Original paper

MEDIA TYPE: Printed Publication

ABSTRACT: When power distribution **apparatus** is **diagnosis** that  
utilizes thermal images automatically, there are problems, that there  
are many thermal patterns similar to the thermal pattern of a target  
apparatus in a thermal image and temperature around the **apparatus**  
influences **diagnosis** of **apparatus**. In order to solve these  
problems, we developed the new method that the apparatus is extracted  
by using image processing technique based on high order local  
autocorrelation features, the attachment pattern on a pole, and  
disparity map, and each **apparatus** is **diagnosed** in terms of  
**local** temperature gradient. This paper is presented that except  
for the case that the infrared camera's sensitivity is low, field  
experiments confirmed that the proposed method can detect **faulty**  
**apparatuses** such as a pin insulator, a section switch and a  
strain insulator. (author abst.)

7/3,AB/2 (Item 1 from file: 144)  
DIALOG(R)File 144:Pascal  
(c) 2003 INIST/CNRS. All rts. reserv.

12190191 PASCAL No.: 95-0405530

Acoustic emission analysis for bearing condition monitoring

LI C J; LI S Y

Changsha inst. technology, dep. precision machinery instruments, Changsha  
, China

Journal: Wear, 1995, 185 (1-2) 67-74

Language: English

For automatic detection/**diagnosis** of **localized** defects in bearings, the utility of advanced signal processing and pattern recognition was established to investigate the acoustic emissions (AE) of bearings. Two normalized and dimensionless features are extracted using short-time signal processing techniques. Employing these two features, linear discriminant functions have been established to detect defects on the outer race and rollers of bearings. Based on the experimental data of seeded bearing defects, the technique is significantly superior to state-of-the-art techniques. AE is also found to be a better signal than vibrations when the transducers have to be remotely placed from the bearing. It takes 20 s for data processing and fault diagnosis on a PC-AT 386, 6 MHz on-line platform.

8/3,AB/1 (Item 1 from file: 2)  
DIALOG(R)File 2:INSPEC  
(c) 2003 Institution of Electrical Engineers. All rts. reserv.

03128444 INSPEC Abstract Number: C88028813

Title: Mathematical model of **local diagnostics** of discrete systems

Author(s): Eena, J.

Author Affiliation: Miki Instrum., Budapest, Hungary

Conference Title: Fifth Symposium on Microcomputer and Microprocessor Applications p.287-92

Publisher: OMIKK-Technoinform, Budapest, Hungary

Publication Date: 1987 Country of Publication: Hungary 2 vol. 700 pp.

ISBN: 963 592 654 5

Conference Sponsor: State Office Tech. Dev.; Hungarian Acad. Sci.; Minist. Ind.; Comput. Res. & Innovation Center

Conference Date: 29 Sept.-1 Oct. 1987 Conference Location: Budapest, Hungary

Language: English

Abstract: Structured vector models of discrete **device diagnostics** based on iterative canonical decompositions (ICD) of Boolean functions are described. Examples of their use to **detect** single stuck-at **faults** at subsystem inputs are given. The ICD method can also be used as a DFT ('design for testability') technique for combinational circuits; it increases observability and controllability with decreasing costs of fault coverage.

Subfile: C

8/3,AB/2 (Item 1 from file: 8)  
DIALOG(R)File 8:Ei Compendex(R)  
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01661051

E.I. Monthly No: EIM8406-047858  
Title: DIAGNOSIS VIA CAUSAL REASONING: PATHS OF INTERACTION AND THE  
LOCALITY PRINCIPLE.  
Author: Davis, Randall  
Corporate Source: MIT, Artificial Intelligence Lab, Cambridge, Mass, USA  
Conference Title: Proceedings of the National Conference on Artificial  
Intelligence, AAAI-83.  
Conference Location: Washington, DC, USA Conference Date: 19830822  
E.I. Conference No.: 04278  
Source: Publ by American Assoc for Artificial Intelligence, USA.  
Distributed by William Kaufman Inc, Los Altos, Calif, USA p 88-94  
Publication Year: 1983  
ISBN: 0-86576-065-9  
Language: English



8/3,AB/3 (Item 1 from file: 94)  
DIALOG(R)File 94:JICST-EPlus  
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05043112 JICST ACCESSION NUMBER: 01A1026167 FILE SEGMENT: JICST-E

**Diagnosis** of power distribution **apparatus** on a pole by thermal  
image processing.

ISHINO RYUICHI (1)

(1) Central Res. Inst. Electric Power Ind., Communication & Information  
Res. Lab., JPN

Denshi Joho Tsushin Gakkai Gijutsu Kenkyu Hokoku(IEIC Technical Report  
(Institute of Electronics, Information and Communication Enginners),  
2001, VOL.101,NO.298(OFS2001 20-28), PAGE.1-8, FIG.14, TBL.1, REF.16

JOURNAL NUMBER: S0532BBG

UNIVERSAL DECIMAL CLASSIFICATION: 621.315/.316 681.3:621.397.3

LANGUAGE: Japanese COUNTRY OF PUBLICATION: Japan

DOCUMENT TYPE: Journal

ARTICLE TYPE: Original paper

MEDIA TYPE: Printed Publication

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apparatus in a thermal image and temperature around the **apparatus**  
influences **diagnosis** of **apparatus**. In order to solve these  
problems, we developed the new method that the apparatus is extracted  
by using image processing technique based on high order local  
autocorrelation features, the attachment pattern on a pole, and  
disparity map, and each **apparatus** is **diagnosed** in terms of  
**local** temperature gradient. This paper is presented that except  
for the case that the infrared camera's sensitivity is low, field  
experiments confirmed that the proposed method can **detect**  
**faulty** apparatuses such as a pin insulator, a section switch and  
a strain insulator. (author abst.)

8/3,AB/4 (Item 1 from file: 144)  
DIALOG(R)File 144:Pascal  
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12190191 PASCAL No.: 95-0405530  
Acoustic emission analysis for bearing condition monitoring  
LI C J; LI S Y  
Changsha inst. technology, dep. precision machinery instruments, Changsha  
, China  
Journal: Wear, 1995, 185 (1-2) 67-74  
Language: English  
For automatic **detection/diagnosis** of **localized defects** in bearings, the utility of advanced signal processing and pattern recognition was established to investigate the acoustic emissions (AE) of bearings. Two normalized and dimensionless features are extracted using short-time signal processing techniques. Employing these two features, linear discriminant functions have been established to **detect defects** on the outer race and rollers of bearings. Based on the experimental data of seeded bearing defects, the technique is significantly superior to state-of-the-art techniques. AE is also found to be a better signal than vibrations when the transducers have to be remotely placed from the bearing. It takes 20 s for data processing and **fault diagnosis** on a PC-AT 386, 6 MHz on-line platform.

8/3,AB/5 (Item 1 from file: 275)  
DIALOG(R)File 275:Gale Group Computer DB(TM)  
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01500405 SUPPLIER NUMBER: 11965403 (USE FORMAT 7 OR 9 FOR FULL TEXT)  
Switching to switchless NICs. (network interface cards; evaluations of  
Intel Corp.'s EtherExpress 16 NIC and Lantana Technology Inc.'s  
Cypress/3-16 NIC) (Hardware Review) (Evaluation)  
Wong, William  
LAN Technology, v8, n3, p87(4)  
March, 1992  
DOCUMENT TYPE: Evaluation ISSN: 1042-4695 LANGUAGE: ENGLISH  
RECORD TYPE: FULLTEXT; ABSTRACT  
WORD COUNT: 2759 LINE COUNT: 00209

ABSTRACT: Intel Corp and Lantana Technology Inc offer switchless network interface cards (NICs) for the Industry Standard Architecture (ISA) that are software-configurable. Lantana's Cypress/3-16 is a 16-bit NIC for token ring networks; it is priced at \$795. Intel's EtherExpress 16 for Ethernet networks functions as either an 8-bit or 16-bit card, and is priced at \$199. Both cards can be configured from the keyboard. The Intel card comes with a setup program that can automatically configure the card as well. Because the cards are switchless, installation is simple. One problem that is common to both cards, but to a lesser extent with the Lantana card, is that of address conflicts between the NIC and the motherboard or another card. A second problem relates to the inability to determine the card's current configuration simply by looking at it; additionally, there is no way to reset the configuration without running the setup program. Intel and Lantana are working on solutions to these problems.

8/3,AB/6 (Item 2 from file: 275)  
DIALOG(R)File 275:Gale Group Computer DB(TM)  
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01451412 SUPPLIER NUMBER: 11238481 (USE FORMAT 7 OR 9 FOR FULL TEXT)  
Self analysis: the types of low-tech tests end users can do on their very  
own. (includes related articles on test technology and T-1 testing)  
(tutorial)  
Tucker, Tracey  
Teleconnect, v9, n9, p98(5)  
Sept, 1991  
DOCUMENT TYPE: tutorial ISSN: 0740-9354 LANGUAGE: ENGLISH  
RECORD TYPE: FULLTEXT; ABSTRACT  
WORD COUNT: 1714 LINE COUNT: 00131

ABSTRACT: End users of telecommunications equipment are frequently testing and monitoring their own equipment for general condition and potential problems. Phone lines are most often responsible for interference, jumbled facsimile and modem transmissions, and signal degradation of touch tones. Impedance tests check inductance, capacitance and resistance. Continuity tests find breaks in cables that interrupt the electrical path. Line tests make sure that the correct amount of voltage is travelling through the line. When voice or line data quality is lost on a network, a tone generator can test for power loss and a dB meter, with or without a notch filter, can test noise measurements. Protocol tests, which analyze traffic flow between **devices**, can **diagnose** software and **local** area network problems as well as integrated services digital network circuit protocols.

06/04/2003

09/896,790

8/3,AB/7 (Item 3 from file: 275)  
DIALOG(R)File 275:Gale Group Computer DB(TM)  
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01245521 SUPPLIER NUMBER: 06743359 (USE FORMAT 7 OR 9 FOR FULL TEXT)  
Network General introduces LAN in laptop. (Laptop Sniffer) (product  
announcement)  
Greenstein, Irwin  
MIS Week, v9, n23, p24(1)  
June 6, 1988  
DOCUMENT TYPE: product announcement ISSN: 0199-8838 LANGUAGE:  
ENGLISH RECORD TYPE: FULLTEXT; ABSTRACT  
WORD COUNT: 440 LINE COUNT: 00037

ABSTRACT: Network General introduces the Laptop Sniffer protocol analyzer for Ethernet **local** area network **diagnostics**. The computer **apparatus** is contained in a Toshiba T3200 AT compatible with a 40Mbyte hard disk and a 80286 microprocessor capable of 12-MHz performance. Each layer of the OSI data communications reference model is supported by the Laptop Sniffer. The protocol analyzer records and analyzes network data and evaluates real-time network performance. The 19-pound laptop base unit is available for \$15,000.